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Forest Governance in Federal Systems: An overview of experiences and implications for decentralization

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FOREST GOVERNANCE IN FEDERAL SYSTEMS: An overview of experiences and implications for decentralization

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TABLE OF CONTENTS

LIST OF TABLES	iii
ABSTRACT	vi
1. INTRODUCTION	1
2. DEFINITIONS: FEDERAL GOVERNMENTS AND DECENTRALIZATION	3
3. FOREST GOVERNANCE IN MAJOR FEDERAL SYSTEMS OF GOVERNMENT: AN OVERVIEW OF CURRENT PATTERNS	5
4. DECENTRALIZED FOREST GOVERNANCE IN FEDERAL AND NON-FEDERAL COUNTRIES: KEY FINDINGS FROM EXPERIENCE	7
4.1 Findings Regarding the Implementation of Political Decentralization	7
4.2 The Forest Sector within a Broader Context: The Importance of Cross-Sectoral Roles and Linkages	9
4.3 Importance of Ensuring Adequate Capacity, Resources, Incentives and Accountability	9
4.4 Findings Related to Participation of Civil Society and Private Sector	10
5. IMPLICATIONS FOR INITIATIVES TO DECENTRALIZE GOVERNANCE	12
5.1 A Framework for Decentralized Forest Governance	12
5.2 Key Considerations for Designing Decentralized Government Entities	17
6. CONCLUDING COMMENTS	20
REFERENCES	21
ANNEXES	28
1. AUSTRALIA	28
1.1 Background and Forest Ownership	28
1.2 Forest Governance	28
1.3 Concluding Comments	31
2. BRAZIL	31
2.1 Background and Forest ownership	31
2.2 Structure of Government	31
2.3 Forest Governance	32
2.4 Concluding Comments	34

3. CANADA	35
3.1 Background and Forest Ownership	35
3.2 Role of the Federal Government	37
3.3 Role of the Provincial Government	37
3.4 Concluding Comments	37
4. THE UNITED STATES OF AMERICA	38
4.1 Background, and Forest Ownership	38
4.2 Federal Forest Service	39
4.3 Concluding comments	40
5. THE RUSSIAN FEDERATION	40
5.1 Background and Forest Ownership	41
5.2 Forest Governance	42
5.3 Concluding comments	42
6. MALAYSIA	43
6.1 Background and Forest Ownership	43
6.2 Federal Forest Management Responsibilities	44
6.3 State Forest Management Responsibilities	44
6.4 Malaysia's Concession System	44
6.5 Concluding Comments	44
7. NIGERIA	45
7.1 Background and Forest Ownership	45
7.2 Role of Federal Government	46
7.3 Role of Sub-National Governments	46
7.4 Forest Revenue and Financing System	46
7.5 Forest Management	47
7.6 Concluding Comments	48
8. INDONESIA	49
8.1 Background and Forest Ownership	49
8.2 Role of the Central Government	49
8.3 Forest Governance	51
8.4 Concluding Comments	52
9. INDIA	53
9.1 Background and Forest Ownership	54
9.2 Structure of Government	54
9.3 Forest Governance	55
9.4 Concluding Comments	56
10. NEPAL	57
10.1 Forests and Forest Production	58
10.2 Forest Institutions	58
10.3 Forest Legislation and Governance: The Move Toward to Decentralization of Forest Management and Community Forestry	58
10.3 Biodiversity Protection: A main goal in Nepal	60
10.4 Concluding Comments: Issues and Challenges	60
11. BOLIVIA	62
11.1 Background and Forest Ownership	62
11.2 Structure of Government	62
11.3 Forest Governance	63
11.4 Concluding Comments	64
ACKNOWLEDGEMENTS	66

LIST OF TABLES

Table 1 - Roles of Forest Agencies in Federal Systems: Overview of Current Practice in Eight Major Forest Countries	67
Table 2 - The Decentralization of Forest Institutions: Potential Advantages, Dangers and Examples of Policy Options	72
Table 3 - Policy Interventions Needed to Build Strong and Effective Linkages In Forest Governance Systems	76
Table 4 - Meeting Requirements for Effective and Efficient Sustainable Forest Management	77
ENDNOTES	79

ABSTRACT

Internationally recognized problems such as illegal logging and uncontrolled deforestation, as well as the broader political trends, are driving many countries to reconsider centralized systems of decision-making and direct government implementation of forest programs. The experience of federal systems of government in distributing authority and responsibility among different levels of government and to the private and civil sectors are particularly instructive in this context - both because the majority of the world's forests are in countries with federal systems, and because these systems are decentralized by design. The paper assesses the experiences of eight countries with federal systems including Australia, Brazil, Canada, India, Malaysia, Nigeria, Russia, and the United States (U.S.). The paper also assesses the experiences of the non-federal countries of Bolivia, Indonesia, and Nepal, since each of them has recently undertaken initiatives to decentralize governance. Overall, the analysis finds that federal systems of government are not only highly varied and complex, with authority and responsibility fragmented across many sectors and levels of government, and that dynamic tension between levels of government is a permanent feature of this type of political system, but that federal administrative systems are in a particularly substantive period of transition. The paper also finds that federal systems are indeed fundamentally different than non-federal governments and that to be effective decentralization initiatives should carefully reflect the existing distribution of knowledge, resources, capacity and incentives of each key government entity and stakeholder involved, and design accordingly. The paper presents key lessons from this diverse experience and concludes with a framework of elements for policy makers to consider when engaging in new initiatives to decentralize forest governance.

1. INTRODUCTION

The role of government has been the focus of great debate in recent years. Much of this debate has focused on the reality of reduced government, increased reliance on markets and on private initiative as well as on the important contributions of civil society and the private sector in providing public services. At the same time, there has been widespread and active debate on the optimal roles of different levels of government: that is, how government authorities and responsibilities should be distributed among different levels of government. A World Bank study in 1999 found that more than 80 percent of all developing countries and countries with economies in transition are currently experimenting with some form of decentralization (Manor 1999).

The forest sector has not escaped these trends. Internationally recognized problems such as illegal logging and uncontrolled deforestation are increasingly identified as due, to a large degree, to weak governance structures. These problems, as well as the broader political trends, are driving many countries to reconsider the role of government in administering their forest resources and many others to actively move away from centralized systems of decision-making and direct government implementation of forest programs.

Unfortunately, the flurry of debate and political activity has often not benefited from the careful analysis of broader experience. While there is tremendous experience and innovation across the globe there have been relatively few attempts to understand how different levels of government interact and balance authority and responsibilities in the forest sector, and how local governments and the private sector as well as the civil society are brought into the picture and influence the progress towards improved management of forest resources.

In this context the experience of federal systems of government in administering forest resources is particularly valuable. Federal systems of government are composed of member states (or provinces) and thus have, by definition, decentralized systems of governance. Responsibilities and authorities are vested with the central, federal government and some with meso level (state, provincial, etc.) levels of government. In federal systems, in contrast to centralized systems, meso and local-level governments are often well established, with long-standing political constituencies and various accountability mechanisms that enhance the performance of these levels of government. Most importantly, the meso levels of government (states, provinces, etc.) not only have responsibilities, but also real authority and legal rights because they are part of a federal system defined by a constitution.

Our purpose in this paper is to review the experiences of selected major forest countries with federal systems of government and derive lessons for policy actors considering future decentralization initiatives, whether through a federal system or some other system of government. The study focuses on the federal governments of Australia, Canada, Brazil, India, Malaysia, Russia, Nigeria, and the U.S. Bolivia, Indonesia, and Nepal have undertaken major decentralization programs and are thus also included, even though they do not have federal systems of government. These eleven countries contain over 60 percent of the world's forests.

The political history of each of these countries is unique. They adopted decentralized forest governance systems at different points in history. Their combined experience presents both common threads and dramatic differences. Those countries that adopted federal systems of government early on have largely adjusted to

the administrative demands of harmonizing the operation of central and sub-national levels of government, while others are still struggling with the complexities of the process of decentralized management. Some have been more successful in securing benefits of decentralized systems of governance while minimizing the associated dangers and costs. Given limitations of time and space, we unfortunately can only scratch the surface of the intricacies and nuances that go to make up the evolution of each country's forest governance and management systems.

The paper is organized as follows: In section 2 we provide background information and definitions of federal systems and decentralization. This information is aimed at assisting readers understand the particular case of federal systems and the particular definitions

that we have adopted for this text. Section 3 focuses on the federal countries and describes the current distribution of authority and responsibility among the different levels of government-and identify patterns across the case studies. This section, as well as those following, is based on the case studies presented in Annex 1-11). These annexes provide an overview of the main elements of forest governance in the countries and their experiences as their systems of governance have evolved. Section 4 presents the key findings and lessons of all 11 country experiences with decentralized forest management. In section 5 we build on the findings and lessons from both federal and non-federal governments to derive implications for policy actors interested in pursuing decentralized forest administration systems.

2. DEFINITIONS: FEDERAL GOVERNMENTS AND DECENTRALIZATION

The last section of the paper provides final thoughts for policymakers.

Countries with federal systems of government share responsibilities and authority, generally through the provisions of a constitution, between national level central government and meso, state, provincial or regional and local levels of government. Powers between these levels are divided and coordinated in such a way that each level enjoys a substantial amount of independence from each other. This implies the existence of a constitution describing clearly the division of powers and a means for resolving disputes. Most importantly, in contrast to simple devolution of specific powers and responsibilities from central to lower levels of government, federations use the principle of constitutional non-centralization rather than decentralization (Olowu 2001).

In other words, as we will see in the various cases, when a group of independent states or provinces decide to create a federation and a federal system of government, they confer, generally through a constitution, certain specific responsibilities and authorities to the federal government in the interest of all states. All other powers, responsibilities, rights, etc., remain with the states. In contrast, unitary governments may have sub-national levels of governments, but these are not constitutionally empowered to make decisions on key government services and functions; rather, they are subordinate units of the unitary government. Indeed, for these reasons, use of the term 'decentralized' is somewhat awkward in the case of federal governments. In most of the federal governments reviewed, including Australia, Canada, Malaysia, and the U.S., authority for forest administration was never "centralized" at the federal level. Because of this confusion, we use the term "decentralized"

to refer to the non-centralized distribution of authorities and responsibilities. Other federal governments, notably India and Russia began as centralized governments, later adopted federal constitutions, and have been, or are, in the process of 'decentralizing' authorities and responsibilities.

In a federal system, central government (most often called the federal government) usually has responsibilities for those resources, activities and events that affect more than one state and that are involved in the production of national public goods, and in some cases production of international or global public goods associated with the environmental services derived from forests. The member states generally have responsibility for and oversight of those resources, activities and events that affect mainly the state in question, the regulation of private forest practice and enterprises, and for those functions that depend heavily on local participation and involvement. Often, the federal government influences or controls state activity through federal laws, incentives and checks and balances related to uses of resources. Member states, in turn, generally regulate and guide the actions of lower levels of government-municipalities, districts, etc.-local community entities, private individual landowners and private companies operating within the states.

Variations between federal systems of government are considerable, however. There are differences in the relationship between "responsibility" and "authority" at different levels of government within federations; there are differences in terms of distribution of fiscal responsibilities; and there are many other differences that distinguish various federal forms of government in the countries reviewed and in those not formally reviewed in this paper. Federal systems of government can be

simultaneously decentralized in some respects and centralized in others, and indeed there is constant tension between different levels of government over the distribution of responsibilities and authorities.

The term "decentralization" also merits additional clarification. Definitions of the different types of decentralization vary and the same terms are sometimes used in inconsistent ways in the literature on the subject. In this paper we adopt the definitions in Box 1.

BOX 1: Different Types of Decentralization

Political decentralization: Groups at different levels of government-central, meso and local-are empowered to make decisions related to what affects them.

Administrative decentralization: Different levels of government administer resources and matters that have been delegated to them, generally through a constitution. In terms of decentralization as a process of change, and according to the level of transfer of responsibilities, it is useful to distinguish between (i) deconcentration, which redistributes decision-making authority and financial and management responsibility among levels of the central government; there is no real transfer of authority between levels of government. It may involve only a shift of responsibilities from federal forest service officials of the capital city to those stationed in provinces, districts, etc (ii) delegation transfers responsibilities and authority to semi-autonomous entities that respond to the central government but are not totally controlled by it. Public forestry corporations and in some cases implementation units of some forestry projects-often donor supported--are examples of this form of decentralization; (iii) devolution transfers specific decision-making powers from one level of government to another (which could be from lower level to higher level of government, in the case of federations, or government transfers decision-making powers to entities of the civil society. Regional or provincial governments, for example, become semi autonomous and administer forest resources according to their own priorities and within clear geographical boundaries under their control. Most political decentralization is associated with devolution.

Fiscal decentralization. In this case, previously concentrated powers to tax and generate revenues are dispersed to other levels of government, e.g., local governments are given the power to raise and retain financial resources to fulfill their responsibilities.

Market decentralization: Government privatizes or deregulates private functions, such as occurred in the case of New Zealand forest sector.

Source: Based on World Bank 2000. Administrative decentralization.
www.worldbank.org/publicsector/decentralization/admindecen.htm

3. FOREST GOVERNANCE IN MAJOR FEDERAL SYSTEMS OF GOVERNMENT: AN OVERVIEW OF CURRENT PATTERNS

This section briefly describes the current structure of forest administration in the eight major forested countries with federal systems of government and identifies particular patterns in the distribution of government authority. Table 1 provides a simplified overview of the main roles and responsibilities of the different levels of government in the eight countries with federal governments.

Perhaps one of the most important findings of our analysis is that most, if not all, of the countries are undergoing important transitions in their forest administration-and the roles, functions and orientations of forest agencies and forest management are in substantial flux. We arrived at this conclusion after discovering that there was often disagreement or general lack of knowledge as to the actual distribution of authority and responsibilities in many countries, as well as from learning that there was often a wide discrepancy between the "official" and the "real" distribution of power. This flux and these discrepancies made the task of identifying the current status of administration a challenge. For these reasons the information presented in Table 1 and the general patterns described below should be treated with some caution. These findings represent our understanding at the moment-but we recognize that the actual status is very fluid in many of the countries studied.

Points below highlight key patterns of forest administration across the eight federal countries.

1. Federal structures of forest governance tend to be complex, multifaceted and to have strong cross-sectoral linkages, e.g., with agriculture, water, transportation, etc., sectors (cf. Schmithüsen 2003; Broadhead 2003). In all cases the federal forest agency is only one of a number of federal agencies administering public forest lands. Strong

roles of other agencies and linkages to other sectors appear to help create the "checks and balances" that enable a measure of accountability to broader society and ensure that the forest sector reflects the concerns of the stakeholders-particularly beyond those directly involved in the forestry sector. In some countries, the number of other sectors involved can run into the hundreds. In the United States, for example, there are some 31 other federal entities that interact directly with the U.S. Forest Service in planning and managing federal forest lands, and many others that have a more indirect linkage (Ellefson and Moulton 2000).

2. With the exception of the United States, in all federal countries examined in this review governments own a majority of all forest lands. Interestingly, of these seven countries where public forest predominates, majority ownership rests with the federal governments in three of the countries (Brazil, India, Russia). In contrast, another four countries, Australia, Canada, Malaysia, and Nigeria, it is the state or provincial level that owns the majority of all forest lands. Federal ownership is substantial even in the United States where the federal government owns about 35 percent of all forests, the states own about 5 percent and the private sector owns the majority-about 60 percent is private property.

3. Policies and government structures to deal with the private sector and the civil society vary widely from country to country. In some, such as the United States, the size of the private sector is considerable and, accordingly, federal as well as state governments have established regulations and programs to encourage and regulate private enterprises. India, in contrast,

- denies private corporation access to public forests and induces corporations to establish partnerships with small "non-forest" owners. In some countries, the access of non-governmental institutions to the government decision-making process is encouraged, while in others such linkage is not promoted actively.
4. In many countries, federal and/or state governments do not officially recognize traditional land ownership rights. Thus, they deal in different ways with the interactions between local populations and local governments with profound implications for the sector's governance.
 5. The degree of responsibility and authority for the forest sector vested in the federal government and other tiers of government varies widely. In some federal countries the administration of the forest sector is relatively centralized, while in others main responsibilities and authority reside either in the second or even third tiers of Government with the Federal Government having a much less potent role. In Brazil, for example, until recently, most key decisions and implementation of programs were under the aegis of the Federal Environment Institute, while in contrast, in Malaysia, states enjoy a high degree of autonomy to design and put in operation their own programs.
 6. In countries such as Australia, Canada, India, Malaysia, and the U.S., comparatively strong meso-level government forestry agencies dominate the picture, to some extent because there is little federal forest land and the functions given to the federal agencies are less. At the same time, federal entities hold key responsibilities in such areas as trade, research, international relations in forestry, and establishment of environmental standards. In Brazil, the U.S. and several other cases, there is more federal forest land ownership and thus more management responsibility for public land resides within the federal agencies.
 7. Federal forest agencies tend to be responsible for managing federal forest lands and providing overall leadership on forestry matters, but often have limited jurisdiction over the regulation of forest practice on private lands-responsibility held in most cases by member states or provinces.
 8. Countries where a majority of the forest land is "owned" by the central/federal government and managed by the central forest agency (e.g. Nigeria, Russia) tend to be the countries where central agencies are weak and control of public forest lands very weak. Countries where a majority of forest lands are publicly owned, but "owned" by state, or provincial level governments (e.g. Canada, India) tend to have a better record of effectively controlling the public forest estate. Thus, decentralized ownership of public lands appears an effective strategy at least in some cases.
 9. However, in most cases, the power of the forest administration agencies, both at the federal and state/provincial level, vis-à-vis other agencies of government is relatively minor. Forest public administrations at federal and state levels are often subsidiary bodies of Ministries of Environment or Agriculture or relatively less powerful Ministries of Forestry or similar bodies. In some cases the jurisdiction of forest agencies is shared with other powerful agencies, such as in the case of Brazil and the United States. A proper management of inter-sectoral and interagency linkages is difficult and not often achieved satisfactorily in most federal countries. Australia is an exception, where the government spends considerable effort and resources in securing public forest administration based on a broad process of consultation and decision making, involving various agencies and actors of the private sector.

4. DECENTRALIZED FOREST GOVERNANCE IN FEDERAL AND NON-FEDERAL COUNTRIES: KEY FINDINGS FROM EXPERIENCE

The 11 countries studied present a rich array of history and experience in forest governance and offer some general findings and lessons for those policy actors considering initiating or furthering the decentralization of their governance structure. These findings and lessons are organized below in four categories related to: (1) the implementation of decentralization; (2) the role of forestry within the broader political context and the importance of cross-sectoral linkages; (3) the importance of ensuring adequate capacity, incentives and accountability; and (4) the importance of ensuring adequate participation by civil society and the private sector.

4.1 Findings Regarding the Implementation of Political Decentralization

1. In most federal countries, decentralization processes involved sovereign states assigning authority and responsibilities to a central government formed through a constitutional process. Exceptions include the Bolivia, India and the Russian Federation, where decentralization efforts involved devolution from central to meso and local level governments.
2. Even in countries where the central government owns most forest lands (Indonesia, Nepal, Nigeria and Russia), the relative power of the federal forest public administration is low and forest agencies were generally incapable of influencing the main course of events. The forest sector was therefore a follower more than a leader in the decentralization process. This feature seems to have been more pronounced in those cases where the central government owns a minority share of the forest land, which is the more common occurrence (Canada, India, and Malaysia).
3. In all countries, the process of debating and adjusting the distribution of authorities and responsibilities between federal, meso and local levels of government is dynamic, i.e., it is an open-ended process. There are ongoing tensions between different levels of government, political forces advocating for greater or lesser degrees of authority or responsibility. Often, these tensions have contributed to a better definition and understanding of governance responsibilities and authority at different levels, consequently reinforcing administrative check and balances. Thus, decentralization processes can be seen as evolutionary, the balance of powers undergoing constant pressure and revision. In some cases, it is a much more revolutionary process (e.g. Bolivia, Indonesia and the former Soviet Union).
4. In all cases, what now appear as effective and efficient decentralized systems took many years to achieve, with a number of adjustments to the many unforeseen events faced along the way. The present is a period of transition in countries such as Bolivia, Indonesia, Nigeria, and Russia, with problems that are more than just "growing pains."
5. In all countries examined, the evolution of the distribution of forest administration authorities and responsibilities between central, meso and local levels of government has been a small part of a much broader national processes of balancing authorities

and powers in the countries in response to shifting goals, needs, resources and political processes.

6. Decentralization of responsibilities and authority to the third level is generally difficult for a number of reasons. First, because these levels of government have rarely been vested with adequate authority, revenues and accountability mechanisms—and thus they lack the capacity and political constituencies necessary to handle new responsibilities. Second, decentralization initiatives frequently assign responsibilities without the complementary rights or resources to motivate adequate performance. And third, because second-level (meso) governments are sometimes inadequately prepared, or involved in mediating between the central and local governments. In some cases, such as India and Nigeria, local, third-tier governments have been given additional responsibilities, but not necessarily adequate authorities and control over revenue to perform adequately. In other cases, such as Indonesia, empowering third-tier level of government has resulted in a loss of national policy coherence and intense tensions as different levels of government struggle for control. In this case, local governments had largely operated as extensions of the central government—and they had no capacity to effectively manage their new responsibilities. The decentralization initiative skipped right over the provincial level, devolving power to local governments. Nepal and Bolivia are more positive examples, where decentralization to local user groups/communities (Nepal) and to municipalities (Bolivia) has had promising results—largely because, in addition to new responsibilities, these local entities were given clear rights to benefit from forests and manage revenues.
7. Decentralization initiatives in federal countries appear easier to conduct, and are more effective in the short-run than in non-federal countries. This is because local and meso-level governments in federal countries, except in the new federal countries of Nigeria and Russia, have traditions and developed local capacity for managing government responsibilities. Decentralization initiatives in non-federal countries are much more challenging, because they necessarily entail developing local government capacity, and setting new precedents for the management of revenues and enforcing accountability. More successful decentralization initiatives, such as that in Bolivia, anticipate the need for building capacity and incentive structures for performance, while those that are less successful, such as the case of Indonesia pay inadequate attention to this issue. This experience suggests that policy makers need to be careful in drawing lessons from decentralized governance in federal governments for application to non-federal governments.
8. In most of the countries, there was a reasonably good understanding of the objectives pursued during the decentralization process, but less clear ideas of the operational mechanisms needed to ensure a smooth transition. In most countries, satisfactory operation of decentralized systems of forest governance depends much on identifying and putting into place the right mechanisms for carrying out the decentralization process to ensure a reasonably smooth, harmonious operation of the various government structures.
9. When administrative and technical human resources are scarce, urban issues with greater political visibility, such as health, education and transportation infrastructure, tended to receive greater attention than the management of forests, particularly when their governance spills over administrative boundaries. Among non-urban issues, agricultural themes received greater attention. Some of these activities, such as those that provide incentives for the expansion of agriculture in Brazil, in fact increased the pressure on forests.
10. Decentralization processes were often paralleled by deconcentration of central government forest related functions. For example, in the United States, devolution of forest administration authorities to the newly incorporated western states (and to the private sector through land grants) was paralleled by deconcentration of the U.S. Forest Service's functions and some of its central decision making to regional offices.
11. Ironically, while there is a trend toward decentralization of forest governance within many countries, there also are developing clear arguments for mechanisms, central or even international (e.g. through global conventions), to ensure that activities and events that affect more than one state and that are involved in the production of national or global public goods associated with the environmental services derived

from forests are being adequately considered by those with the mandate to manage them.

4.2 The Forest Sector within a Broader Context: The Importance of Cross-Sectoral Roles and Linkages

1. In most of the countries studied, a great many different government agencies in addition to the forestry agencies are involved in decisions related to the protection, management and utilization of forest resources. An extreme example is the U.S., where many hundreds of different entities are involved at the state level. At the federal level, the U.S. Department of Agriculture-Forest Service's strategic plan for 2000 involved coordination with 31 other federal entities.
2. In most countries, cross-sectoral linkages and impacts are important in shaping approaches to forest governance. Sectors such as judiciary, agriculture, energy, transportation, environment, help shape each country's approach to forest administration, management and utilization. The complexities mount when one combines the numerous cross-sectoral linkages that exist with the different responsibilities of different levels of government and agencies at a given level. Australia has relatively successfully coordinated and consolidated functions where possible. The importance of cross-sectoral linkages and opportunities have become quite evident recently in the case of Nepal.
3. Because of the numerous inter-sectoral linkages and the relatively low level of power and authority of public forest administrations, effective decentralization in the forest sector could only take place in any significant degree when functions of government in other sectors and dimensions of governance, such as taxation policy, law enforcement and political participation also were subject to decentralization. Problems arise if this is not achieved, as shown in countries such as Brazil, India, Indonesia, and Nigeria.
4. However, all cases show that simultaneous and balanced fiscal, administrative and political decentralization involving not only the forest administration but also related sectors and functions is extremely difficult

to achieve in practice. Problems arise if there is not a balance achieved, as shown again in such countries as Brazil, India, Indonesia, Nigeria, and Russia.

5. The degree and extent of decentralization varied during different periods in given countries, e.g., in Brazil, India and the United States. This illustrates the concept mentioned above that the process is a very dynamic one and depends on political philosophies and government-wide adjustments to the public administration in general, not only in the forest sector and forest-related agencies.
6. National forest congresses or fora with broad political support (e.g., Canada or the Malaysian National Forestry Council) can help bring different stakeholders together to shape a strong national vision for forests and a strategy that can be adopted and adapted by the sub-national levels of government, civil society, the private sector and the international community. Similar fora have been used in Australia, Nigeria, and the U.S.

4.3 Importance of Ensuring Adequate Capacity, Resources, Incentives and Accountability

1. Effective and efficient forest governance appears to depend more on the capacities and capabilities of the individual managing entities than it does on any particular form or degree of decentralization or centralization of management functions. More specifically, such capabilities are required in both central and meso or lower levels of government for a decentralized forest governance system to function effectively and efficiently in a federal system of government.
2. Weak administrative and technical capacity at the local government level, e.g., in the cases of Bolivia, Brazil, India, Indonesia, and Nigeria, often prevented effective function delivery-such as monitoring and control of activities in forest reserves-which in turn resulted in opportunities for local elite or private sector domination of decisions involving forest resources. Thus, legal reforms are not enough. Institution building is also needed.
3. Countries such as Nigeria illustrate the fact that decentralization of administrative responsibilities without the provision of commensurate financial resources creates

- incentives to manage resources unsustainably for immediate revenue generation to finance local government operations. Furthermore, even if central government financial resources flow to second or third tiers of government (Indonesia), local government incentives to rapidly deplete forest resources may be intense if there is a high level of uncertainty over forest resources control and authority.
4. In some countries, decentralizing financial resources without a proper mechanism to ensure responsible fiscal management led to local government unaccountability, excessive indebtedness, and lack of local government interest in administering forest resources and to a lack of fiscal resources that were needed at the central level to meet national forest management priorities (Brazil). This void also facilitated the local capture of decisions on these resources by powerful economic and political interests for rent-seeking purposes.
 5. In Nigeria, state governments have received only limited authority with most of the responsibilities and power going to sub-state local governments instead, even though such lower levels of government have little capacity to manage forest resources. The result often is turmoil and lack of any progress in forest management.
 6. Decentralization in the forest sector of most of the countries was generally characterized by initial scarcity of managerial and technical resources at the state and local levels of government (Bolivia, Brazil, India, and Indonesia). In these circumstances some sub-national governments have either ignored forests or used them in unsustainable manner rather than providing leadership and initiative in improving the management of forest resources in their jurisdictions. This has led, in some cases to increased federal regulation of states or provinces, particularly related to such themes as environmental protection.
- organizations can play, not only in administering forest resources, but also in actively ensuring government accountability to civil and private sector concerns.
2. In some cases (Brazil and Malaysia), state-level public administrations have been strengthened but little power and authority have percolated to local governments and to potential partners in the civil society and the private sector.
 3. In some situations, national and international NGOs have entered into productive partnership with local entities to support measures to improve local governance and protection of forests (Bolivia, Brazil, Indonesia, Malaysia, Nepal, and U.S.). These partnerships appear to have worked better in cases where there were mechanisms and channels for effective communication not only between levels of government but also between them and other stakeholders as well.
 4. Where the private sector owns the majority of the forest land (e.g., U.S.), the states' forest agencies and associated government entities are often responsible for regulating the private sector, with a main focus on environmental impacts of commercial forest activities and fair business practices in the case of industry. The federal government also gets involved with the private sector through various incentive and fiscal programs. In other cases (Australia, Bolivia, Canada, Indonesia, and Nepal), there also is active involvement with the private sector, but more through the granting and regulation of long term concession agreements and other forms of contracts for private use and management of public lands.
 5. In nearly all countries, the governments at local, meso and federal levels have considerable interaction with Indigenous Peoples, tribal groups, etc., who have claims on land and forest resources and form part of the overall forest governance picture. Such interactions at times turn contentious, such as in Indonesia, where the government has not adequately responded to their concerns, and since governments often are reluctant to recognize traditional rights (even in cases when these rights are established in the constitution and/or related legislation). Bolivia and Nepal provide positive examples, where governments have recognized community forest rights, vesting these stakeholders with strong incentives to protect and improve their forest resources.

4.4 Findings Related to Participation of Civil Society and Private Sector

1. All cases indicate that the private sector and civil society play a crucial role in determining the success of governance of forest resources. The cases of Bolivia, Nepal, and the U.S. illustrate the important contributions that local civil society

6. Experiences in countries such as Australia, Bolivia, Canada, India, Nepal, and the U.S. suggest that local citizen group participation is needed to avoid higher level governments imposing measures that may clash with local conditions and traditions (such as imposing strict conservation measures in areas traditionally used by local communities). This is particularly important in the non-federal countries reviewed. Political incentives to include greater participation in decision making may increase if advocacy groups can help to organize disadvantaged groups, increase public awareness of the costs of maintaining the status quo, and provide some of the technical services (such as monitoring and dissemination of information) that local governments may be ill prepared to provide.
7. Often the drive towards more decentralized forest governance was followed by shifts in the public-private balance, both in terms of management and in terms of forest

ownership, e.g., in the cases of Australia and the U.S., and in Canada in terms of long-term contracts with the private sector.

These are general findings, ones that we found to hold in more than one of the case study countries. There are many other findings unique to each country that are mentioned in the cases themselves. Many of the findings apply across the board in countries that have decentralized systems of government or are moving towards them. They illustrate the fact that building a successful forest governance system requires the input and consideration of agencies, civil society groups and other entities far beyond the narrow confines of federal, meso and local level forest agencies. One also can draw general lessons from the cases; and in the next chapter we look at what we think are some of the key lessons within the context of a general framework of the key considerations in a successful decentralized forest governance system.

5. IMPLICATIONS FOR INITIATIVES TO DECENTRALIZE GOVERNANCE

5.1 A Framework for Decentralized Forest Governance

Based on our interpretation of the experiences of the 11 countries studied, we suggest that the basic framework for successful decentralized forest governance entails: (1) appropriate and effective sharing of authority to make decisions and raise revenues and sharing of responsibilities for forest related activities among levels of government according to their individual abilities and needs; (2) effective enforcement of accountability at all levels of government to ensure the citizens and civil society groups that government agencies are acting fairly, efficiently and effectively in terms of carrying out their various mandates; and (3) effective linkages with the other sectors that affect or are affected by what happens in the forestry sector, such as finance, the judiciary, agriculture, energy, transportation, etc.

In more detail, the possibilities of success are conditioned by:

1. **Appropriate sharing of decision-making authority and responsibilities for forest management** between different levels of government. This includes **effective financing arrangements and revenue sharing mechanisms** for different levels. Questions of particular concern that need to be considered in each country include:
 - Is there adequate technical and political capacity to govern and make public interest decisions at each level according to its assigned responsibilities?
 - Do the existing laws clearly harmonize different national, regional and local objectives and functions?
 - Are there effective two way communication and support functions that link states and lower levels of government?
2. **Effective enforcement of accountability at all levels of government.** The main issues relate to:
 - Have tenure issues been sorted out, not only ones related to the private sector and indigenous groups, but also between land controlled by different levels of government and different agencies?
 - What responsibilities are best carried out centrally, at state level and at local levels?
 - Which responsibilities are best given to or shared with the private sector or community civil society groups?
 - Are fiscal responsibilities coexisting with management responsibilities to make sure that responsibilities can be adequately discharged?
 - Is there adequate and clear ability to tax and charge at local levels without double taxation?
 - Are there clear mechanisms in place to link forest revenues to budgets and expenditures at the different levels of government?
 - Are there incentives to tax and charge at local levels (often missing due to local pressures on government)?
 - Are there transfers from central government (in lieu payments, transfers in kind, etc.)?

- Are there effective public checks and balances on power use and misuse, e.g., through courts?
 - Is there adequate public information to ensure clear "rules of the game," and transparency for all stakeholders?
3. **Appropriate and effective linkages with other sectors and non forestry agencies** (including public-private sector links). The key questions to be addressed relate to:
- Are power sharing among sectors and conflict resolution options effective at all levels of government?
 - Are there effective relationships with the private sector and regulation of private activity?
 - Are there effective mechanisms to govern and support intra governmental linkages and authority sharing?

A point to stress here is that it is the relationships or balances that are created between authority, accountability mechanisms, responsibilities, and revenue sharing at different levels of government that determine the effectiveness and efficiency of decentralized systems of forest governance. Thus, for example, power without accountability can lead to arrogance, blatant favoritism and corruption. Decentralized power without accountability can be worse than centralized authority with accountability, if it leads to exclusion of certain stakeholders and to local corruption and waste. Therefore, while it is essential that decision-making authority be vested along with responsibilities in local governments, it is equally important that the mechanisms for accountability be in place.

Similarly, responsibility without authority leads to ineffectiveness. The same is true of responsibility without resources to meet it. If a local government entity is given responsibility for general forest management, then it also must have authority and the secure and stable resources to carry out those responsibilities. As will become evident in the discussion, adequate resources in some countries have not accompanied added responsibility; and the result has been ineffectiveness at best and failure over time to meet the responsibilities. In other cases, responsibilities have been split, leading, for example, to fiscal volatility; or they have been unclear, leading to duplication of efforts or not effort at all.

A variation on this theme is that in some cases intermediate levels of government (or even the central government) retain control of financial resources. Since the possibility of discharging responsibilities and exert authority is tied to the availability of financial resources, this in fact means that the government entity

that controls finances also, de facto, controls the activities that depend on those resources for implementation, even though in law and on paper, the activities are the responsibility of a different level of government.

The third element in the list-cross-sectoral linkages-relates to the complexity of forest governance in most democratic systems, where there are many different actors and stakeholders with different interests, different time lines and different perspectives on what the nation's forests are supposed to contribute to the nation. The cases illustrate these complexities, both the benefits when they are adequately understood and considered and the problems that can arise when they are ignored and an imbalance in power results. It is important that all stakeholders have a forum and mechanism for making their interests known and considered in planning and decision-making. And it is important that there are clear "rules of the game" (allocation of ownership, responsibilities, resources, and authority) and mechanisms to avoid overlaps, conflicts, and lack of needed action created by confusion. Decisions regarding forests often are some of the most complex and contentious that a nation and its states face. In a decentralized system, it is not just different levels of public forest administration that matter, but a whole host of other formal and informal entities, as will be discussed below.

In what follows, we use our framework and the empirical evidence from the cases to provide general insights or lessons for those involved in the development and implementation of decentralized forest governance structures.

5.1.1 Sharing Authority, Responsibilities and Revenue

There are numerous policy options available to help ensure that the potential advantages of decentralization are realized and that the potential disadvantages are avoided or minimized. Most of these have been used in one situation or another in the countries reviewed. Some of the main policy interventions that can be used to avoid the potential dangers and take advantage of the opportunities for potential gain are described in Table 2. Key insights are detailed below and organized in three categories: sharing authority, sharing responsibilities, and sharing revenue.

Sharing Authority

- **Parallel decentralization.** Political, fiscal and administrative decentralization should move in harmony. Several of the cases (Brazil, India, Indonesia, and Nigeria) show that without devolution of authority and fiscal responsibility along with management

responsibilities, local level governance becomes ineffective and can cause failures in the system. Effective decentralized management generally involves devolution of not only management functions, but also some authority or rights, including the authority to raise revenue dedicated to forest management and conservation functions.

- **Strong central government guidance and overall authority.** Decentralized management does not necessarily mean less need for a strong central government. For functions that remain with the central government, there must be a commensurate power to enforce them. The central government must have the institutional authority to enforce the rule of law on those levels of government and actors that refuse to accept it. If this capacity is not in place, decentralization is likely to take off in an informal manner with decisions by local governments rapidly taking over the vacuum left over by the formal process of the central government.

This is, so far, the experience of Indonesia, where the precipitous decentralization process has created uncertainties about authority and responsibility and sterile tensions between the previously powerful central Ministry of Forests and the third tier district governments that now concentrate most of the de facto power. The lack of a strong central government is certain to produce frictions between levels of government and lead to administrative disorder leading to further loss of national policy coherence. In some countries, the lack of clear rules of the game and the relative weakness of the central ministry to enforce the law result in state and local government forest resource-related initiatives that, while giving importance to local priorities, nevertheless disregard national objectives and forest policy coherence and often favor local elites.

- **It is not merely a matter of devolution of authority and rights from central to lower levels of government.** Even within state and local levels of government themselves, decentralization is likely to be more difficult when existing powers (often local elites) need to relinquish control of valuable resources or will in some other way be disadvantaged by the shift in authority. The pressures on local government officials from such entities can lead to a situation where the local elites effectively are making the decisions to their advantage. There is the danger, such as in some local governments in India and Indonesia, that decentralization may perpetuate or even reinforce the power of local elites, who are better positioned to

adapt and gain from a rapidly changing institutional environment, leaving the disadvantaged, the illiterate, women and poor behind. Decentralization is likely to work when there is a political will and social context that is coupled with adequate resource endowments and a substantial share of the benefits going to these disadvantaged groups. Shifts in authority or power are easier when there is little to lose or when they merely formalize rights already effectively held by local government or communities.

Sharing Responsibilities

- **Clear rules of the game.** Ambiguous allocation of responsibilities and authority will result in greater opportunities for corruption in the administration of the nation's forest resources as the room for discretionary management decisions increases. Different groups have great incentives to rush to establish claims, legitimate or not, over the most valuable forest resource and to exploit them as fast as possible, before these claims are challenged. This is the situation in Indonesia and Russia, where the imperfect legal frameworks have created challenges to authority, frictions between levels of government and, in some cases, capture of forest resources by companies and communities acting in concert with local officials. If responsibilities are not clearly established, understood by all, and enforced by government agencies with unchallenged authority to do so, then local elites can dominate the decentralization process to the point that they can effectively undermine its expected benefits.
- **Appropriate responsibilities for each level of government.** Each level of government has a role to play in the governance of a nation's forests. For example, some responsibilities are better suited to the federal government and different agencies within it, such as the maintenance of those national public goods that can benefit all or most states and local jurisdictions (through research, controls on international and interstate trade); and some things are better done by the states, such as hands-on management of forests where the local interests should predominate and regulation of private activity. Still other aspects are more effectively and efficiently taken care of by the private sector, regardless of whether the forest land is privately owned or not or by some non-governmental organizations with greater flexibility and understanding of the perspectives of local governments and local communities..

For instance the roles of the private sector are quite similar in Canada, Malaysia, and the U.S., even though there are quite different conditions in terms of forest ownership and private sector access to forest resources. Ideally, government functions should be discharged at the lowest possible level where effectiveness and efficiency are possible. However, some of the problems in managing forest resources in a satisfactory manner have arisen because of the vague nature of the assignment of responsibility between the municipal, state and federal government. This can lead, among other things, to overlapping and sometimes conflicting actions. It is imperative to have detailed regulations to provide a clear administrative framework for operation and carrying out respective responsibilities, as is shown in the case of Indonesia, for example. Such a framework needs to not only specify what needs to be done, but also how (what methods are and are not acceptable in a given situation). This general lesson holds whether we are talking about federal-state relations or state-local relations.

- **Balance between authority and responsibility.** Experience in a number of countries shows emphatically the importance of avoiding decentralization schemes that shift responsibility and authority for certain functions, but not for other related functions. For example, the lack of stricter correlation between the authority to incur debt and spend and the responsibility for such actions and for generating the revenues to spend has produced strong inducements to fiscal irresponsibility in states. In India political decentralization has been quite effective, but the authority of local governments to incur debt, or tax and have independent sources of finance is lacking. This in turn can affect state budgets for forest governance.

Ensuring Adequate Financing Arrangements and Revenue Sharing

- **Financial resources transfers and accountability.** Transfers of resources, both financial and in kind, from central or federal government to the states and the private sector are common occurrences in all 11 countries. Such transfers are a necessary reality in terms of providing incentives and the ability to carry out forest management activities at the state and local levels in order to create results that are socially desirable beyond the borders of a local community, county or state. Such desirable outputs include environmental services, but also goods such as timber. At the same time, a close watch has to be kept on resource

transfers to make sure that they are effectively and efficiently administered and used. It is all too easy to make transfers without having the necessary checks and balances on their use. The result can be waste and deviations from desired policy and action outcomes, as illustrated in several of the countries studied. In Bolivia, for example, some municipal governments treat central government transfers of financial resources earmarked for forestry development activities, as discretionary funds that can be used for other purposes.

- **Revenue independence.** Local governments need to have a degree of independence in raising and capturing financial resources that are dedicated to the forestry sector, rather than being completely dependent on allocations from the state government. This is because there is no real autonomy if the higher levels of government have exclusive control of financial allocations. Yet, as in the case of India mentioned above, local governments often are prevented from imposing taxes or charge for forest uses. The same is the case in Brazil. In these cases the decision making power rests with the level of government that controls finances and this may or may not coincide with local priorities. Mechanisms are needed to ease the severe pressures (often from local elites and power bases) that are put on local governments when they try to raise revenues through forest use and timber harvest fees and charges. At the same time local revenue independence should take place in an administrative environment of transparency and checks and balances by various stakeholders to avoid the natural tendency to over exploit forest resources for short-term financial and political gain (Indonesia).
- **Local government incentives.** When local government financing is secured through transfers from other levels of government, there is little local government incentive to engage in local revenue raising activities that may upset local voters and powerful economic interests. On the contrary, such strategy may favor the capture of local government in sectors that are currently not producing government revenues but that generate substantial private financial gains as the incentives for keeping government out of those sectors increases. The Brazilian experience also shows that local governments can influence public involvement by targeting financial contributions to activities, such as conservation, that may be considered as desirable.

5.1.2 Enforcement of Accountability

- **Ill-defined authority and responsibility feeds poor governance.** As discussed above, accountability is key to good governance in the sector. Accountability can only be powerful if authority and responsibility lines are well defined. Incentives for quick exploitation of forest resources to satisfy local government financial demands as well as the capture of these resources for corrupt deals are potent in a government structure where the lines of authority and responsibility are not well defined and accountability is ignored. Illegal logging and corruption at the local level seem to have increased in countries such as Russia and Indonesia, after decentralization. "Rules of the game" with well-defined authority and responsibility for the various functions of the public administration must be clearly understood by all, as illustrated in several of the country cases.
- **Tensions among groups at various levels can help ensure accountability.** Some of the tensions created between the various entities as they watch each other carry out the responsibilities and guarding the rights assigned to them, are healthy and have in some cases created a much needed set of checks and balances on government forest governance actions. Such checks and balances can ensure effective accountability. In the United States, the continuing tension between advocates of state forest ownership and governance and those who advocate strong, continuing or more federal governance is a healthy interaction that results in higher levels of accountability and public focus on the U.S. forest estate and what happens to it. Civil society watchdog organizations have been created in various forms in most states or provinces in the reviewed countries, although they definitely are weaker in some countries than in others. Given their nature, it is evident from the cases that if the government, particularly the federal government, does not recognize the legitimacy of such groups, then they tend to be ineffective. In other cases, ignoring such groups has led to strife and sometimes violent conflict. An interesting point is that in some of the countries studied, international NGOs appear to have had and be having a greater influence than the local ones.
- **Transparency.** Local governance is likely to be more effective if there are systems of decision-making, reporting and auditing that are transparent and easily understood by all, thus strengthening the need for accountability mechanisms. This relates to

the need for clear "rules of the game" in terms of who has the authority to do what and what the real incentives for action are in reality.

5.1.3 Catalyzing the Contributions of Civil Society and Private Sector and Creating Effective Cross-Sectoral Linkages

The 11 country examples studied in this paper have used a wide variety of policy mechanisms as a means of guiding the development of their forest sector across different government agencies and the private and civil sectors. While the roles of public, private, and civil sectors vary, and the types of linkage and their strengths vary from country to country, a number of common policy interventions have been used to catalyze the contributions of each sector and to build supportive and complementary linkages. Table 3 provides an overview of the types of policies that exist in the eleven countries reviewed and that can have potential for use in forest sector decentralization exercises in other countries. Key insights are listed below.

- **Interactions between government and the civil society.** In most of the countries reviewed, the pressures between civil society interest groups and government agencies are stronger than between the levels of government. This is an important lesson. Quite often, governments spend an inordinate amount of time and effort to get federal-state forestry relations organized, when the real effort needs to be devoted to the question of government (in general)-civil society-private sector linkages. This is where the pressures tend to be today; this is where much of the innovation in management and co-management is taking place; and this is where many of the checks and balances on illegal forest activities will be put in place.
- **Linkages between decentralized structures of government.** Effective links are needed not just between different sectors within a state or district, but also there is a need for inducements for cooperation between neighboring districts for managing forest resources for environmental externalities such as erosion and watershed-wide coherent programs. Decentralized structures of government must have a proper framework and incentives to achieve greater coordination among districts for environmental management of functions that spill over administrative boundaries. These were missing in several of the countries studied and the results were ineffective management of watersheds and

deterioration of environments. An alternative to formal interstate pacts or local incentives for cooperation is used in some countries, where federal governments take a stronger role in areas where there are impacts of actions across state, provincial or other meso-level boundaries.

- **Decentralization and stratified societies.** Decentralization is more difficult in the case of highly stratified societies in which ethnic, tribal, income and/or gender prejudices are deeply rooted. Cultural changes are a key ingredient in effective decentralization, and unless such changes occur, there likely will be a strong tendency to erect bureaucratic barriers to protect the status quo, or at least to slow down the pace of decentralization. Government capacity building is necessary but it is unlikely to be a sufficient factor to change perceptions and cultural biases quickly. Recognizing the legitimate rights of various cultural groups is an important aspect of the decentralization process, even if it involves shifting significant authority and forest ownership to such groups.
- **Catalyzing the private sector.** The private sector is a key player in most major forested countries. In some, such as New Zealand, the private sector has the major role, while in others, such as India, it has a much narrower and less critical role. In terms of policy interventions and what can be expected of the sector, it is worth noting that private industry in a market or mixed economy responds to market and policy signals that affect its ability to profit, grow and be secure. If appropriate signals do not exist, then only in rare instances will industry initiate actions that are socially desirable but financially irrational (i.e., involve lowering of profits, sales, or growth). Changes in the way industry manages forest lands will take place when financial signals stimulate desired change.
- Key here is the fact that industry expects government to make policies that create a level playing field and a stable environment for industry. This means introducing some stability in land use, tenure, and in the forest area available for management and sustained yield timber harvesting. In most of the nine countries reviewed, a mix of approaches to adjusting forest land and forest available to the private sector is used. On one end, in India, private corporations have practically no access to public forest resources. Long term contracts for management of public lands are common in some countries, while in others, such as Australia, there have been large-scale transfers of public land management authority to the private sector.

- In addition, in a number of countries, policies have been formulated to encourage (by providing incentives) industry to participate in longer term management of those public lands set aside for multiple uses (e.g., in Australia, Canada, and Malaysia). These policies have been joined with others that generate revenues for local people from the use of the forests in their regions, either directly, or through formal pay backs and "in lieu" payments from the central government to states and local governments. However, there also are examples where governments have given mixed signals, not clearly defining which lands will be available long term for production of forest products. In such cases of uncertainty, industry tends to move on to other countries or other regions where conditions are more stable. Stability of policies and a "level playing field" for all participants are two key policy requirements for a healthy private sector to operate within a given country's systems of forest governance.

5.2 Key Considerations for Designing Decentralized Government Entities

Finally, the cross-country analysis indicates quite clearly that effective and efficient governance of a nation's forests under a federal system of government can take place under a wide variety of conditions with regard to forest ownership, authority, financing options, balance of management responsibilities between federal, state, local and private entities, financing and funding options, and general political contexts. However, it is equally clear, both from the failures and successes, that the existence of a productive, sustainable forest sector depends very much on the organizational and technical capacities and competences of each of those entities that do carry out the responsibilities assigned to them and on the incentives that they face to meet their responsibilities and use their authority in a fair and constructive fashion. To be most effective, public forest management entities at each level of government should have:

- **Knowledge/technical capacity** to set appropriate management objectives for the forest responsibilities under their jurisdiction, to design the actions needed to meet those objectives, to know how, when and where to implement the actions, and where to go to get expert advice and information. As mentioned, a critical issue in

the context of this discussion is that forest sector executives at sub-national government levels must understand and follow national goals and at the same time understand and accommodate provincial/state goals and provide guidance and integrate objectives that institutions in lower strata of government-such as local municipalities-will also have to follow.

- **Resources** to do what needs to be done. This relates to the whole discussion above on lessons related to human and financial resources, mechanisms, and budget formulation and implementation. It relates to how countries link forest related responsibilities and thus budget needs to the revenues collected from forest use. Authority and financial resources must match responsibilities.
- **Rights and authority** to make decisions in the management of the forests under their jurisdiction, given acknowledged goals and objectives. In other words an enabling policy environment must exist for a forest governance agency to succeed. A main issue is that there has to be a capacity to ensure overall coherence so that subsidiary levels of government do not contradict national priorities. At the same time, national priorities cannot violently clash with those of provinces or regional bodies. There has to be some hierarchy of objectives and a mechanism that will ensure that the whole scheme will have a degree of coherence in forest governance. There must be a clear division of responsibilities between the various tiers of government. Of course, it is not just a matter of authority but also national vision for forestry and the capacity to achieve coherence and capacity to enforce. This relates to the next requirement; namely
- **Motivation** to manage in a transparent, non-corrupt, equitable fashion. This includes the issues related to reducing illegal activity that is so rampant in some of the countries studied. This relates closely to the accountability mechanisms mentioned in the final bullet below. It also relates centrally to the question of incentives. Motivation is driven by both positive incentives as well as "negative" incentives, i.e., incentives not to do something. These generally come through laws that have strict penalties if broken. In between are the voluntary restrictions on forest use and misuse, typified in many of the state forest management practices guidelines established in Australia, Canada, and the United States.
- **Accountability mechanisms** that ensure that sub-national governments (as well as the central government) will have their

major decisions constantly scrutinized by the public, by official oversight mechanisms, advocacy organizations, financing entities and so on. Capital markets are able to constrain irresponsible fiscal decisions and local voters may influence local decisions if these decisions affect forest land values. One of the problems of decentralization not percolating to lower levels of government and to entities of the civil society and the private sector is that local government officers are not always elected by the local populations. When this happens, there are no government incentives to foster participation and to promote transparent decisions. Mechanisms must be designed to secure transparent decision-making and participation. This is why successful decentralization most often is associated with democratic values and democracies.

Of course, no government entity is automatically endowed with optimal levels of knowledge and motivation to perform. For this reason, it is important for decentralization initiatives-which commonly assign or redistribute rights and authority and perhaps the accountability mechanisms, and sometimes resources, to different levels of government-be designed to reflect the existing distribution of knowledge and motivation, and then, in parallel, initiate and implement a program to increase the capacity of each entity in these areas. A number of policies exist or can be designed to ensure that all entities have the prerequisite knowledge, authority, resources and motivation to manage effectively in the context of the overall national goals for sustainable forest governance. **Table 4** provides an overview of the types of policy instruments that have been useful in the nine countries in helping entities to meet the requirements for effective management, recalling that in many of the countries reviewed, the private sector has a prominent role to play, and thus also must be addressed in the overall policy context.

It is important to emphasize that we should not get caught up in the debates over local vs. federal vs. private forest management, to the extent that we then ignore what may be even more important, namely, the requirements for good governance that apply to each agency regardless of the level of management and the balance between the responsibilities of entities at different levels. In the final analysis, it matters less how the responsibilities and authority for governance are split between agencies at different levels of government, if the individual forest agencies do not meet the basic requirements for efficient and effective governance.

6. CONCLUDING COMMENTS

Since the early 1980s, decentralization has spread around the world. This report draws on case studies of eight countries with federal systems of government and three countries that have centralized governments that in sum control the majority of the world's forests. The objective has been to identify factors connected with success and extract lessons from their experiences that other countries can use in improving their decentralization initiatives.

The examination of the countries indicates that decentralization offers great opportunities for improved forest management, but also great challenges. Decentralization is far from being the solution to the ills of the forest sector, because significant possible disadvantages and dangers match its potential benefits. Progress towards achieving the many potential benefits of decentralization faces hazards that are not easy or simple to overcome.

This review attempted to determine what combinations of factors make decentralization undertakings work in a satisfactory manner in the forest-based sector, using federal countries as the framework for the analysis. Findings are as relevant to situations in all countries that are starting down or want to continue down their paths towards greater decentralized forest governance. Many countries that do not have federal systems of government, regardless of their current level of decentralization, are in fact operating with forest sector governance systems that are similar to those found in the countries with federal systems of government.

In all cases studied, developing an effective and efficient path towards decentralization

took many years to achieve, with a number of adjustments to the many unforeseen events faced along the way. The present is a period of transition in countries such as Russia and Nigeria, with problems that are more than just "growing pains". The future of forests in such countries will depend heavily on the building of effective forest governance capacity in both meso and lower levels of government and the skill and willingness of high level government officials, politicians and forest managers in the public and private sectors to steer the process and avoid administrative chaos and financial crises, which tend to create fertile conditions for the "capture" of government for private ends.

The present review also provides evidence that transitions to more decentralized systems of forest governance are extremely complex. This exploratory study has barely touched on the intricacies involved. Additional analytical is needed to contribute further to a better grasp of the factors that shape success and the dynamics of the decentralization process. While there is a vast and rich literature on decentralization and forest management and governance, much of it does not specifically assess the issues associated with the incentives, the political economy, and other factors influencing the functioning of countries' forest administration systems and particularly not with the capabilities and managerial and governance capacities of the entities within such systems. Such additional assessment is needed.

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ANNEXES

1. AUSTRALIA

1.1 Background and Forest Ownership

Australia is a large commonwealth with a forest resource of some 164 million hectares (ha), covering about a fifth of the continent's area. Of the total forest area, about 1.5 million ha is plantation forest. This small portion of the total forest estate provides over 50 percent of Australia's wood needs (and 70 percent of the sawnwood produced in Australia). About one quarter of the native forests are privately owned and three quarters in various government ownerships. At the same time, adding private leases of public land to privately owned forest land, the result is that more than 70 percent of Australia's forests and woodlands are on privately managed land, with the remainder being managed by state, territory and other government agencies. Australia's forests are important to the country, both from an environmental perspective and an economic one (the forest industry is one of Australia's largest manufacturing industries, with an annual turnover of more than \$15 billion).

As in all countries with federal government systems, Australia's history of forest governance and relationships between different levels of government, and between government and private landowners and industry has been checkered, with various experiments in forest governance giving way to others as old issues are resolved and new ones emerge. It appears at present that Australia now has a solid set of institutions in place to assure progress in moving towards the dual objectives of forest protection and growth of economic benefits from forests through ecologically sustainable forest management.

1.2 Forest Governance

The Commonwealth forestry activities are mainly handled through the Department of Agriculture, Fisheries and Forestry, although other agencies are involved as well. The Constitution confers certain specific powers on the federal government, with all other powers not so conferred residing with the individual state and territorial governments; and these powers relate to land tenure, land use and water supply. The result is that most forest governance issues and responsibilities reside with the states and territories. They all have forestry programs and agencies that deal with forestry. No state has a discrete forestry agency: all of the old Departments, Forest Services and Forestry Commissions have disappeared. Forestry is now just a small component of larger integrated departments or multi-resource agencies like Primary Industries, Natural Resources and Environmental Conservation and Land Management, etc.

At the same time, the government of Australia has clearly specified responsibilities with regard to the country's forest estate. These relate to international trade in forest products coming from such lands and they relate to a variety of environmental concerns and responsibilities.

1.2.1 Mechanisms

Over the years, different mechanisms have been developed to ensure the activities of all levels of government are complimentary and coordinated. Some have worked better than others, and many adjustments have been made.

One can identify several important key elements in the current Australian government relations with states and territories in terms of harmonizing forest conservation, management and use and establishing an effective and efficient balance of authorities and responsibilities. These are:

- The National Forest Policy Statement (NFPS) signed by the Commonwealth and all states in 1992.
- The establishment of Regional Forest Agreements (RFAs) to implement responsible forestry in a win-win fashion in terms of Commonwealth and state and local objectives and relationships; and related
- The establishment at the Commonwealth level of the Forest Industry Structural Adjustment Package (FISAP) which was an initiative to help forest industry and workers adjust to changes brought about by the RFA process.
- The consolidation (in 2001) of ministerial level dealings with all natural resources management issues into the Natural Resources Management Ministerial Council (NRMMC) and, in the case of the "industry related" issues, the Primary Industries Ministerial Council (PIMC). Both were designed to streamline the ways in which government (Commonwealth/State/Territory) dealt with NRM, including forestry issues.
- Establishment of conservation focused mechanisms that link Commonwealth to the states and territories, including the Natural Heritage Trust in 1997, which funds, among others the National Landcare Program which incorporates some aspects of local forestry.

All of these mechanisms provide the basis for Australia to establish and implement decentralized forest governance and management within the states and territories, while protecting national interests and responsibilities related to, for example, trade and environmental protection. In what follows, some of the details of these programs and how they have functioned will be briefly overviewed, drawing out some of the lessons that can be learned. It should be noted before starting that there are varying interpretations of the success of these various mechanisms and varying interpretations of how they came to be. The issues, as in the case of most other countries, revolve around the question of what and how much land should be logged and how much of the native vegetation on private freehold land can be cleared for conversion to agriculture.

1.2.2 The National Forest Policy Statement

The NFPS is the culmination of many debates and earlier accords that had been developed to shape the future of Australian forestry and to establish an effective and solid working relationship between the different stakeholders. This Statement was jointly developed by the Commonwealth, States and Territories through the Australian Forestry Council and the Australian and New Zealand

Environment and Conservation Council in consultation with other relevant government agencies, the Australian Local Government Association, unions, industry representatives, conservation organizations and the general community. The Statement was signed by all participating governments, with the exception of Tasmania, at the Council of Australian Governments' meeting, held in Perth in December 1992. Tasmania became a signatory to the Statement on 12 April 1995. The Statement was developed concurrently with the development of the Ecologically Sustainable Development National Strategy and the National Greenhouse Response Strategy.

1.2.3 The Intergovernmental Agreement on the Environment

The 1992 Intergovernmental Agreement on the Environment was developed concurrently to provide a co-operative national approach to the environment and to provide better definition of the roles of respective governments. The Agreement endorses ecologically sustainable development as the basis for land use decisions. It also identifies the circumstances in which the Commonwealth government may have an interest in land use decision-making processes at the state level. Some of these include the following:

- places listed on the Register of the National Estate;
- activities that involve export and where states are required to seek Commonwealth approval for export licenses or foreign investment to use area on the Register of National Estate;
- where the Commonwealth government has obligations under international conventions;
- where the state and Commonwealth governments are proposing an area for nomination under the World Heritage Convention;
- where proposals for resource use transcend boundaries and affect two or more jurisdictions;
- where other responsibilities under Commonwealth Acts of Parliament require it; and
- where other conditions under the Intergovernmental Agreement on the Environment require it.

Most of these links to state activity were incorporated into the [Commonwealth] Environment Protection and Biodiversity Conservation Act of 1999. In carrying out its responsibilities, the Commonwealth government may merely accredit a state's processes, if these are deemed to meet Commonwealth standards and requirements.

1.2.4 The Comprehensive Regional Assessments and the Regional Forest Agreements

To determine how best to meet both central government and state or territorial needs and responsibilities with regard to forests, all governments have agreed to what are called "Comprehensive Regional Assessments" (CRAs). These assessments lead to a single agreement relating to the joint obligations for forests in a region. A complex set of rules and procedures are negotiated between Commonwealth and state governments and the end result are Regional Forest Agreements (RFAs). These Agreements encompass:

- establishment and management of a system of forest reserves (Protected Areas) which is comprehensive, adequate and representative,
- ecologically sustainable management of those parts of the forest estate in which production is permitted, and
- development of an efficient, internationally competitive timber industry.

RFAs are agreements between individual states and the Commonwealth and recognize the range of economic and environmental obligations which each tier of government has regarding the long term management and protection of forest values in specific regions. RFAs are intended to recognize and meet the legislative obligations and policies of both Governments. RFAs are intended to provide stability through the establishment of a sustainable resource base for industry, while at the same time ensuring the protection of Australia's biodiversity, old growth and wilderness through a reserve system and complementary off-reserve management.

In addition to state and territorial and Commonwealth interests, the RFAs have to be designed and agreed upon in a way that takes indigenous interests into account. (This directive is similar to one included in the Land and Resource Management Planning process taking place in the province of British Columbia, Canada). The Native Title Act 1993 recognizes and protects native title rights and interests. In recognition of this Act:

- where any Government action to implement an RFA could affect native title, the action will be taken in accordance with the Native Title Act; and
- an RFA is not intended to influence in any way native title claims that may arise.

Many changes in land classification have occurred as a result of the implementation of a Comprehensive, Adequate and Representative

(CAR) reserve system, in which the tenure of more than 3 million ha of forest land changed from Multiple Use (which allows for timber harvesting) to Nature Conservation Reserve. The CAR reserve system was a key objective of the Regional Forest Agreement process.

One can see that there is great complexity and need for a great deal of inter-sectoral in addition to intergovernmental dealings in order to get workable RFAs established. So far, there are 10 such agreements in place in four states.

1.2.5 Commonwealth Government

The Commonwealth's principal involvement in forest issues derived from the Export Control Act 1982 which had been invoked to regulate the export of woodchips and unprocessed wood, as an indirect control over state-approved logging for export woodchips. In assessing applications for export licenses under this Act, the relevant minister was required to ensure that a range of Commonwealth obligations are met.

The Forest Industry Structural Adjustment Package (FISAP) is a Commonwealth Government initiative to help forest industry businesses and workers adjust to the substantial reduction in the native forest resources available to industry resulting from the Regional Forest Agreement (RFA) process.

1.2.6 State Governments

As mentioned, the NFPS also recognizes that state, but not territorial governments have constitutional responsibility for land use decisions and primary responsibility for forest management. These responsibilities also are considered in drawing up the RFAs. To fulfill this responsibility the states have enacted legislation that allocates forest land tenures and specifies the administrative framework and policies within which public and private forests are managed.

With regard to the private sector, and particularly privately owned native forests, state governments pursue public objectives with the private sector through several distinct initiatives. They include:

- creation of a range of incentives to promote ecologically sustainable forest management on private lands
- education programs, e.g., such as through the Landcare Program and other community groups;
- applying to private land codes of practice that apply to public lands;
- encourage compliance with ecologically sustainable forest management objectives;
- rationalization of the tax laws applied to private native forest lands;

Finally, regarding Commonwealth-State interactions, the Australian Forestry Council, representing the state and the Commonwealth agencies with responsibility for forestry, has developed a set of national principles to be applied in the management of native forest resources used for wood production on both public and private lands. ("Forest Practices Related to Wood Production in Native Forests: national principles"). These principles determine a consistent and scientific basis for sound management to which all states are committed. Specific prescriptions by the different states conforming to the national principles take into account the wide range of forest types, conditions, and situations applying due to natural and cultural variations.

1.3 Concluding Comments

The Australian experience shows that the successful operation of a federal system of forest administration requires a very complex government structures, clear and harmonic rules, intensive consultation and accommodation of diverse interests, including those of indigenous populations, the civil society and the private sector. A great deal of data and information must move between the different levels of government. A critical mass of well-trained government staff is also needed to keep the government structure functioning smoothly.

2. BRAZIL

2.1 Background and Forest Ownership

Brazil is one of the largest democracies of the world and is the fifth largest country in territorial size. Natural forest resources spread for 565 million hectares (ha) or 66 percent of the country's land area. This is more tropical forest than any other country in the world. About 95 percent of this forest is within the Amazon. The Amazon forests contain vast timber resources, at least half of the world's species and store large amounts of carbon (140-350 tons per ha).

The rest of the country's forest resources stretch along the Atlantic coast, one of the richest in biodiversity and most threatened ecosystems in the world (deciduous forests behind the Atlantic forests and arid forests in the Northeast). In the south, (especially in Paraná, Santa Catarina and Rio Grande do Sul) there is a transition zone of coniferous Araucaria forests. Extensive areas of the Atlantic and Araucaria forests were cleared for agriculture (FAO 2003).

There are some 230 conservation areas on 45 million ha and the government has pledged to increase this area by 25 million ha. In addition,

the government has designated over 98 million ha as protected indigenous reserves, home to some 300 indigenous groups. Many of the conservation and indigenous reserve areas are illegally occupied and logged.

There are about 5.5 million ha of forest plantations mainly in the south of the country. The rate of plantation is about 135,000 ha per year. The national deforestation rate, one of the highest of the world in absolute terms, was about 2.5 million ha for the period 2001-2002 (CIFOR 2003). About 13 percent of the Amazon is deforested.

Forest resources sustain a sizeable industry that employs 1.5 million people (Virgilio et al. 2002). The country is the largest producer and consumer of tropical timber and only a small proportion of the national output is exported.

Natural forests are publicly owned but large areas have been claimed by colonists and then converted to non-forest uses.

2.2 Structure of Government

Brazil's federal structure comprises 26 states, a federal district, and more than 5,500 third-tier governments, the municipios. Interactions between these three levels of government have fluctuated over the years from authoritarian centralized decision making to periods when decentralization forces have dominated and the power of sub-national governments has substantially increased.

The 1988 Constitution granted considerable political, tax power and fiscal resources to states and municipios. Public control of the national economy decreased as privatization and liberalization took hold. Under the Constitution, each level of government (federal, state and municipal) has their own executive and legislative branches. However state and federal district legislation cannot conflict with federal legislation.

The new Constitution specified the roles of the different levels of government. Responsibility for local functions such as primary education and preventative health care were assigned to the municipios. The federal government retained functions that were national in scope such as defense and foreign affairs. The rest were the responsibility of the state, shared in different degrees by the central government. Similarly, responsibility and resources for the implementation of development programs was largely decentralized from the federal government to the states, municipios and local communities. (van Zyl et al. 1995). From a fiscal point of view, the new structure of government was very favorable to sub-national governments which were granted sweeping spending powers. Brazil became one of the most fiscally decentralized countries in Latin America (World Bank 2000b).

By the mid 1990s, centrifugal forces started to show, with signs of government fragmentation, of inadequate representation, and of inefficiencies in the allocation and use of fiscal resources. First of all, the political system prevented the implementation of policies aimed at reducing inter and intra regional differences, creating a problem of "over-decentralized" and "asymmetrical federalism" (Ramos 1998). Second, sub-national autonomy was high with regard to revenues, expenditures and access to capital markets, and state governments often irresponsibly used this power to overspend and for political patronage based on extensive hiring. And although sub-national governments had the power to tax, they were reluctant to do so because of the negative political implications of increased taxation. State fiscal deficits exploded. There were no mechanisms to prevent the central government from bailing out deeply indebted sub-national governments and the central government often ended up picking up the tab for state overspending (Tyler Dickovick 2003). This created a financial dependency of sub-national governments on the central transfers to finance their operations. Massive transfers from the national treasury flowed to sub-national governments.

As a consequence, Brazil started to become difficult to manage as a coherent entity and national debt expanded to dangerously high levels. In the late 1990s federalism became the subject of broad national debate as local and state fiscal deficits ballooned and the centre struggled to impose fiscal discipline (Selcher 1998).

In the mid 1990s, under the Cardoso Presidency (elected in 1994 and re-elected in 1998), and in a successful move to fiscal discipline, the National Congress was given the role of controlling the public budget, including that at the state and municipio level (Llambi 2001). Banking on his enormous popularity, President Cardoso was able to impose fiscal responsibility on the states, a process that culminated with the approval of a comprehensive Fiscal Responsibility Law in 2000 (Tyler Dickovick 2003).

2.3 Forest Governance

Before 1988, responsibilities for forest management resided with the central government. After the adoption of the new Constitution, the federal government, states and the federal district can legislate concurrently on matter related to forests.

The Ministry of Environment was established in 1992 and assumed responsibility for planning and implementation of environmental policies. The federal Brazilian Institute of Environment (IBAMA) was created in 1989, from the fusion of several other previous federal agencies,

including the Brazilian Forest Development Institute (IBDF) and with responsibility for the implementation of national environmental and forest policies. Initially, and despite the Constitution's emphasis on decentralization, IBAMA adopted a centralized model of forest administration. IBAMA's main responsibilities were to administer a program of forest subsidies and to design forest policies, both functions requiring a strong centralized approach (Hirakuri 2003). These functions were lost when the Ministry of Environment acquired the responsibility for policy formulation and subsidies program was substantially scaled down. However centralized approaches to forest administration persist despite IBAMA's power to transfer some of this authority and responsibility to sub-national governments. A detailed study of the nature and effects of decentralization of municipal governments in various parts of the Amazon reveals that despite great variations between local governments, forest decentralization at that level has been minimal (Toni 2003).

There are several cultural, fiscal and political reasons for the apparent inconsistency between the earlier national decentralization drive and the continuing influence of the federal government in forestry matters.

Local governments and populations have a long tradition of considering forests as obstacles to development and therefore initially state and local governments were uninterested in promoting forest management. The example of the Amazon is telling. As mentioned, the great majority of the country's forest resources are in the Amazon. Early Brazilian policy for this region made emphasis on increasing government presence and populating this vast area under various development schemes, such as the Trans Amazon settlement program. Largely this was due to the widespread perception that there were global pressures to "internationalize" the Amazon, and other threats to Brazil's sovereignty that needed to be fought by occupation and physical presence of Brazilian settlers in the area. During this period an attitude towards forest management as a secondary consideration and to considering forests as impediments to development prevailed. The expansion of agriculture, infrastructure and human settlements at the expense of forests were preferred options. Decentralized governments and agencies paid little attention to forests.

The lack of priority accorded to forestry issues was evident in the official policy and legal framework. For example, sustainable forest management was not specified as a priority until 1965, with the publication of the Forest Code, Law 4771. However, this legal prescription was ignored for the next 21 years.

Guidance on what sustainable management implied did not come until 1986 when Law 7511 stipulated it as a requirement. In 1989 the government defined for the first time what sustainable forest management entailed in practical terms. Only in 1995, almost 30 years after the Forestry Code had been issued, did IBAMA begin to require forest management plans. In these circumstances much of the legal prescriptions governing forest management were administrative decrees that had limited legal power and were easily challenged in the courts (Hirakuri 2003). State and local governments understandably preferred to stay away from a sector where law enforcement was contentious.

Further, the magnitude of Brazilian forest ecosystems is such that it is difficult for local governments to promote appropriate forest management. Municipios as well as many states simply lack technical and managerial expertise as well as funds to manage forest resources effectively. (Hirakuri 2003).

Most fundamentally, given the dependency of sub-national governments on central government financing, there was little interest in establishing forest management prescriptions and establishing taxes, resource fees and law compliance controls that could alienate local political constituencies and powerful elites.

Finally, lack of coordination between the different layers of government and conflicting legislation issued by the federal, state and municipal levels created frictions that local governments preferred to avoid by keeping their distance from assuming key responsibilities in local forest management. For example, in the past the federal National Colonization and Agrarian Reform Institute, INCRA, sometimes ignored state zoning plans and installed settlements in areas designated for other purposes by the state (Lele et al. 2000). Similar problems exist between IBAMA and FUNAI, the Indian Affairs Agency. IBAMA is the only agency that can issue sustainable forest management infraction reports in indigenous reserves but physical enforcement is in the hands of FUNAI. When FUNAI agents detect an infraction they cannot act, because IBAMA must issue the infraction report first. Conversely IBAMA may detect a problem and issue an infraction report but has no power to seize illegal forest products or in any other way enforce the law (Hirakuri 2003) Unclear rules of the game and the ensuing frictions between government agencies greatly diminishes the interest of state and municipal governments to have a more intense and direct involvement in the management of the sector.

Hence, in short, there are both few fiscal incentives and strong political and technical deterrents for local governments to take control

of the administrative responsibilities of managing forest resources. As a result, in the past there was great sub-national government apathy towards forest management and the federal government had to continue to take up a large part of the responsibility for the administration of the sector. This, and given the magnitude of the country's forest resources, the federal government could do only in an imperfect way. Partly because of the shortage of resources, financial, managerial and technical, most of the national harvest took place in illegal ways and deforestation rates increased.

Recently, national and state governments started to issue legislation to push for greater involvement of sub-national governments in the management of forests and there are signs that certain aspects of local forest governance are beginning to change (Toni 2002).

Some of this change is due to the recent use of financial incentives increasingly being adopted by some of the states. An important source of municipal financing is the products and services tax (ICMS). States transfer 25 percent of this tax to municipios. Some states began to use this transfer to favor municipios that have environmental conservation areas, the so-called "ecological ICMS" or "green ICMS." This is interesting some executives in local governments that are beginning to see investments in the forest sector as an opening for accessing financial resources without establishing unpopular and politically difficult local taxes. It is now financially advantageous for municipios to participate more intensely in local forest management and to regulate protected areas. Some are going further by offering incentives to private owners to establish private reserves.

Some analysts point out that given that forest decentralization and the interest of local governments is dependent on strong financial incentives, other fiscal tools could be considered such as the participation of sub-national governments in the administration of timber concessions in national forests. Although the National Forest Program includes the participation of local governments in timber harvesting, it is not yet clear how this can be accomplished in practice by the municipios.

The federal government and its Active Community Program have also tried to foster linkages between local governments and the local population. Under this program, municipios stimulate discussions for the preparation of Sustainable Local Development Plans. These plans should have the support of all levels of government. The Program has met with modest success. At the beginning of 2002 only 157 municipios participated in this program. Again, there is no strong incentive for local

governments to promote this type of interaction. And in certain cases, differing priorities of poor local and of entrenched and powerful elites of loggers and cattle ranchers have led to intense frictions and clashes (Toni 2003).

Further, law 9985 passed in the year 2000, creating a National System of Nature Conservation Areas (SNUC). This law prescribes the participation of municipios in the management of forests. However, most of the conservation areas have been created by the federal government, often in conflict with local priorities and in weak consultation with local stakeholders. Also these conservation areas remain plagued by the problems of vague land tenure rights.

The Programa Nacional de Florestas (PNF) was released in 2000 (Decree 3420, Macqueen et al. 2003). The Plan is composed of projects designed with the participation of all levels of government and the civil society. The Plan is governed by a Coordinating Commission that includes representatives from other strata of government, the private sector and the civil society (Government of Brazil 2000). Various national and international NGOs participate in various programs and projects in partnership with international and national agencies and contribute to raise awareness, increase political pressure for action and supply some of the technical expertise that may be in short supply in some of the state and, specially, municipalities.

An interesting observation is that because of the variation in the systems of incentives for local government to involve themselves in local forest management, decentralization in the forest sector has moved in directions that are the opposite of national trends. When a powerful decentralization effort was under way immediately after the 1988 Constitution, there was little interest on the part of local governments to assume responsibility for the management of their forest resources. Real responsibility remained with the national government, which in turn had to operate through weakened federal agencies. The Cardoso presidency and its fiscal centralization trends coincided with a growing interest on the part of some local government in managing forest resources. This was mainly due to a change in incentives to local governments and arguably to increased pressure from public national and international opinion as well as advocacy groups that increasingly focused their action on the deforestation and degradation of national forests. Further, the central government has begun to push for a greater role of local governments and groups of the civil society in promoting better administration of forests in programs such as the SNUC and the PNF.

2.4 Concluding Comments

Experiences in parts of Brazil are extremely diverse-not a surprising trend in such a varied country. There are substantial differences in the intensity and impact of forest decentralization between, for example, the Atlantic Forest, where environmental awareness, local administrative capacity and transparency tend to be greater, and the Amazon, where government institutional capacity is lower and power of local elites and timber interests is greater (Lele et al. 2000). In some cases, local governments have been able to integrate different sectors of society, including NGOs and disadvantaged groups such as Indian populations and extractivists, and other levels of government in forestry initiatives. At the other extreme there have been generalized cases of apathy, local capture of government by influential groups and increased mismanagement of forest and deforestation.

This case makes it clear that proper forest governance requires clear rules of the game and clear division of vertical and horizontal responsibilities between levels of government and government agencies. The delays in issuing regulations related to the Forest Code created a number of problems and pressures that had to be resolved by administrative decree, of dubious legal potency and thus susceptible to challenge in the courts. The unclear division of authority and responsibilities between federal and sub-national governments and between different agencies such as IBAMA, FUNAI and INCRA created high levels of uncertainty and therefore reluctance in sub-national governments to become actively involved in forest management.

As a related theme, successful operation of sub-national levels of governments requires proper incentives for these governments to become involved in forest management. If state and municipal government financing is secured through transfers from the center, there is little incentive for state and municipal government to engage in revenue raising activities that may upset local voters and powerful local economic interests. If political costs of imposing order in the sector implies alienating political constituencies, and generate few direct benefits, it is likely that state and local governments may become more reluctant to act. Thus, if the financial proceeds of sustainable forest management either are modest or the local government can more easily obtain financial resources from elsewhere, for example from the center, local government decision makers may not have enough incentives to work for decentralized forest management. Other sectors and activities with more important political payoffs would naturally receive higher priority.

If forest resources have been traditionally considered as "free gifts" of nature and as impediments to development of other activities with more immediate returns, it is likely that a negative attitude towards local forest management may prevail among the population, voters and decision-makers. In Brazil, clearing of forests was often regarded as a sign of progress (Pandolfo 1994). This cultural trait may be difficult to change in the short term. If this is the case, state and municipalities may be more reluctant to follow national prescriptions for sustainable forest management.

The Brazilian experience also illustrates the convenience of avoiding decentralization schemes that shift responsibility and authority for certain functions and not others and that transfer duties without transferring the required funds. The lack of stricter correlation between the power to incur debt and spend and the responsibility for such actions produces strong inducements to fiscal irresponsibility.

Political and financial incentives to action may increase if advocacy groups can help organize disadvantaged groups, increase public awareness of the costs of maintaining the status quo, and provide some of the technical services (such as monitoring and dissemination of information) that sub-national governments may be ill prepared to provide. There are cases in which national and international NGOs have entered into partnership with local governments and agencies of the national government to support measures to improve local governance. In any case, participation is needed to avoid cases of governments imposing measures that may intensely clash with local conditions (such as imposing strict conservation measures in areas traditionally used by local communities).

Arguably action by national and international NGOs has helped to induce more aggressive decentralized programs to improve forest management. The recent political push by the central government to increase civil society participation and more transparency in decisions affecting forests can only strengthen the trend to improve sub national involvement in administering the nation's forest resources.

The government capacity to deal with forestry issues is generally limited. When administrative and technical human resources are scarce, urban issues with greater visibility, such as health, education and transportation infrastructure, tend to receive greater attention than the management of complex forest ecosystems that spill over administrative boundaries. Among non-urban issues, agricultural themes such as rural credit receive greater attention. Some of these activities, such as those that incentive the expansion of agriculture, may in fact increase the pressure

on forests. Unless there is a certain critical mass of local government capacity, illegal activities and tax evasion practices that negatively affect local revenues are likely to expand.

3.0 CANADA

3.1 Background and Forest Ownership

The history of federal forest policy in Canada is long. The federal system started with the British North American Act enacted in 1867. That act brought the colonies of Quebec and Ontario (known then as Upper and Lower Canada) and Nova Scotia and New Brunswick into "One Dominion". Manitoba was included in 1870, British Columbia decided to enter in 1871, and Prince Edward Island in 1873. The other Prairie colonies were governed as territories until Saskatchewan and Alberta were admitted as provinces in 1905. Finally, Newfoundland joined in 1949, under the Terms of Union between Canada and herself, thus completing the picture. In addition, there are three territories that are an integral part of Canada-the Yukon, the Northwest Territories, and as of 1999, Nunavut. Together, these territories contain about 40 percent of the area of Canada and a great deal of forest.

The British North America Act (BNA) spoke in its preamble of forming a "union," of "federally" uniting the provinces under the Crown. Like the American Constitution, however, it did not make clear just what it meant by those terms. It generally is conceded that the BNA extended authority for both nation building and province building as the two focal points of Canadian development. Recognizing the new nation would need a countrywide basis on which to build for it to live in the world of nations and of international trade, the act granted strong powers to the central government; but power over such areas as education, civil law, health and welfare, property, and civil rights was left with the provinces. Indeed, by its own words in the preamble, the BNA posits "a Union would conduce to the Welfare of the Provinces..." The act, which has-with amendments-served as Canada's constitution to this day, thus accepted regional differences and regional expression of them as a fundamental precept of the Canadian governmental arrangement. (ACIR 1981)

Forestry and the legislation and policies that shape it in Canada have evolved through five stages, the first starting before the BNA of 1867. The first stage (up to the mid 19th century) was a period of unregulated exploitation. This was followed by an era of regulation imposed to earn revenue (mid to late 19th century), where the Provinces, bolstered by the 1867 Act, consolidated their control over the forest lands within their boundaries.

In the third stage, there was a focus on conservation (late 19th to mid-20th centuries) in response to devastating effects of widespread exploitation. Civil society groups provided influential input in shaping policies and spreading awareness of forestry issues (e.g., the Canadian Forestry Association), and the federal government stepped in with the appointment of a federal forestry commissioner to deal with various trans-provincial issues and concerns. Both federal reserves and provincial ones were established (e.g., through the federal 1906 Dominion Forest Reserves Act and Ontario and British Columbia's reserves acts). Provincial forest services were formed, the first one being in Quebec in 1909. Scientific forestry was introduced across the nation.

The fourth stage was one involving the introduction of scientifically based "timber management" (starting mid 20th century), which still focused on the income generating opportunities that forests provided Canada and its provinces. Forest inventories came into their own to provide improved information on the forest resource and its changing nature. It became clear that there had been considerable depletion of the forest resource and concerns were starting to mount. Many of the provinces responded with the appointment of Royal Commissions, and these in general ended their work recommending a move towards sustained yield forestry. During all of these changes, the provinces took the lead, with the federal government providing research and other support. Links to the private sector took a different form. Most provinces adopted incentive-based tenure systems in which long-term rights to Crown land were granted in exchange for a commitment to practice sustained-yield forestry. The granting of extensive area-based licenses remains largely in place today, as well as some volume-based tenures.

Gradually, during the 1970s and 1980s, interest in forest uses other than timber production started to mount and complaints about the timber focus grew from civil society, much as was the case in the USA and in Australia. Thus started the current and fifth stage, still in progress, which is labeled the "sustainable forest management" stage. Several attempts were made to raise the role of the federal government in forestry, and separate federal departments of forestry have been established twice, although both were short-lived. Most recently, in 1993, the then existing Department of Forestry was restructured within a broader Natural Resources Canada-Canadian Forest Service, and its overall size was reduced. Devolution continued, and even some core federal activities in forest research and development were curtailed. Funding for

federal-provincial forestry agreements ended in 1996-1997.

About half of Canada's land area, or some 416 million ha, are classified as "forest" land. Much of it is open, non commercial forest comprised of natural areas of small trees, shrubs and muskeg. Some 235 million ha are classified as public and private forests for multiple uses. About 23 million ha are protected from harvesting by legislation, and a great deal more land is protected by public policy in the provinces. Fully 94 percent of Canada's forests are publicly owned, (71 percent is owned by the provinces and territories, 23 percent by the federal government), and the remaining 6 percent is owned by some 425,000 private entities.

3.2 Role of the Federal Government

The British North America Act granted ownership and legislative authority over most publicly owned forest lands to the provinces. This exclusive provincial jurisdiction over forest resources was confirmed in a Constitutional Amendment in 1982, which also enabled provinces to levy indirect taxes related to natural resource revenues. The federal government's jurisdiction over forestry is mostly limited to the 23 percent of total forest lands it controls in the Yukon, Nunavut and Northwest territories, although it also has the constitutional authority to indirectly influence all forest management in Canada, e.g., through its influence and controls related to trade and commerce, science and technology development (research), environmental laws, federal fisheries legislation, Indian lands, and so forth. It should be noted that the federal government owned and had jurisdiction over natural resources (including forests, minerals, petroleum, etc. in the three prairie provinces (Alberta, Saskatchewan, and Manitoba) until 1930, at which time jurisdiction was ceded to provincial governments.

In terms of the focus of this paper-the links between federal and provincial and territorial governments-there were significant changes during the mid 20th century. In 1930, for example, the federal government devolved jurisdiction over forests to the three prairie provinces. Prior to that, federal control over these lands had provided the federal government with significant leverage in terms of its influence on forestry. After the transfers, the federal forest service control and management was restricted to the northern forests and a small percentage of federal lands in the provinces (such as Indian reserves, national parks and military bases).

In 1949, the Canada Forestry Act was passed and it enabled the federal government to enter into cost-shared conditional-grant programs

with the provinces, initially focusing on access road construction and mill modernization. It was only after the Canadian Council of Resource and Environment Ministers (CCREM) was formed (1971) jointly by the provinces and federal government that federal efforts began to focus more on forest management and regeneration. In 1987, the National Forest Sector Strategy outlined clearly the federal role in areas within its jurisdiction (e.g., trade enhancement, public education and forestry research). The federal government had already devolved its forest related administrative duties to the territorial government in the Northwest Territories in 1986.

3.3 Role of the Provincial Government

Since the mid 1800s, provincial and territorial governments have enacted legislation regarding forests that has adjusted to the changing social, environmental and economic perceptions of the values placed in forests, although it cannot satisfy all the diverse perceptions of the role of forests that exist in Canada. Provincial differences in legislation and in regulatory mechanisms are significant. Recognition of the legitimate rights of Aboriginal people has come to the forefront in the past few decades, and in many parts of Canada, they have become major factors in the progress of forestry and forest use.

A point to keep in mind is that there have been constant tensions between the provinces and the federal government over sharing of power. Those tensions came to a head in the seventies "...at the First Minister's Constitutional Conference in Ottawa, February 5-6, 1979, the nature of the discussions which took place between the heads of governments at that time can be gleaned from Prime Minister Pierre Trudeau's statement following the conference. Mr. Trudeau declared the national government had gone 'a very considerable distance' at the conference 'to satisfy feelings of regional alienation, feelings of provinces who felt that they were endangered by federal preeminence in legislative areas.'" (ACIR 1981) As discussed in the case of the U.S., such tensions, if balanced, can be healthy in terms of keeping both state and federal governments focusing on efficiency and effectiveness in government and keeping them more focused on accountability in order to avoid losing powers to the other.

3.4 Concluding Comments

While environment, sustainable development and ecosystem management have grown in importance in the minds of Canadians and world citizens in general, a continuing major factor driving forest management and many of the forestry issues in Canada is the importance to the economy of Canada's forest industry and

trade in forest products. There are hundreds of forest dependent communities in Canada (ones in which more than fifty percent of the community's base income is dependent on forest based activity). One in 16 Canadians depended on the forests for work in 1996. Forest industries employ some 350,000 people directly and indirectly some 770,000 Canadians depend on the forests for employment. Forest products sales generate over 58 billion (Canadian) dollars annually, and make a net contribution of some C\$34 billion, or more than half, of Canada's annual trade surplus (National Forest Strategy Coalition 2003). Thus, economic benefits from forest industry are an important factor in Canada's thinking about forests. Similarly, the environmental aspects of the forest are clear in the minds of Canadians today. These two interests often conflict and are the basis for debates that lead to changing legislation, regulations and approaches to forest management. The issues arise more between civil society groups and both provincial and federal levels of government rather than between the two levels of government.

In 1998, all the provincial and federal level ministers with primary responsibilities related to forests signed the Canada Forest Accord. A great number of private and civil society groups also signed the accord, including the National Aboriginal Forestry Association, Canadian Institute of Forestry, and others. While it is a flowery, highly political document in a way, at the same time, it reflects the Canadian will to work together in land management. It also reflects the strength of the movement toward increasing the effective involvement of the public in making decisions on the 94 percent of forest land that belongs to the public domain. Indeed it has been stated that "...one of the discerning features of Canadian resource management in the 1990s has been a tremendous innovation and progress in public participation in the forest sector." (Chambers 2003). Many provinces and territories now have legislation that requires public participation in forest management.

The public organizations involved in federal and state/territorial management of forests in Canada recognize the importance of continual interaction and cooperation. In fact, as in the case of Australia, they have joined together in the Canadian Council of Forest Ministers (CCFM) that is focused on making more effective and efficient linkages between federal and provincial/territorial entities. Canada, like most of the other countries reviewed, is a good example to illustrate how long it takes to move towards a satisfactory system of forest management and administration in a federal system of government. A main lesson from this case and others is that it is unrealistic to expect

a newly established federation to move rapidly into a stage where it has an effective and efficient forest governance system that is responsive to both the national and the regional needs and wants.

4.0 THE UNITED STATES OF AMERICA

4.1 Background and Forest Ownership

The United States (U.S.) began as a set of states with their own laws and lands which came together as a confederation. More centralization occurred over time. This contrasts with the sequence of events in many other countries in which the country was divided into multiple states, and decentralization and devolution occurred later. As territories and states were established within the U.S. and as grants of land went to companies (e.g., the railways) and to private individuals through various means of transfer, the ownership mix gradually shifted to most forest land being in private ownership. At present, more than 77 million hectares (ha) in 41 states are in the national forest system (out of a total federal ownership of 105 million ha), while only about 15 million ha are in state ownership, and some 180 million ha are in private hands, including both industrial and non-industrial ownership. Thus, in contrast to such countries as Australia and Canada, forest ownership in the U.S. is predominantly private, and some 80 percent or so of timber production comes from private lands. Federal government ownership is heavily concentrated in the West (since these were the states that were formed after the federation was formed) and private ownership is concentrated in the South (almost 90 percent of the forest land in the South is privately owned). The heavy concentration of private forest land creates some issues and responses that are different from countries where public ownership predominates.

4.1.1 Federal Ownership

In contrast with many other federations, where the constitutions gave all or most forest ownership to the states or provinces, forests initially were placed in the "public domain" under what is now the federal government. Thus, 1789 Constitution had a "Property Clause" that reads:

The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claims of the United States, or any particular state."

The U.S. Supreme Court has upheld the right of the federal government to hold land in its

ownership unless Congress directs it otherwise. Formal federal forest reserves were established in 1891 with the passage of the "Forest Reserve Act." It authorized the President to create "forest reserves." These early reserves eventually (1907) became the national forests (currently some 77 million ha) under management by the U.S. Forest Service, created in 1905. It was evident that, while the US Congress in the early days was in favor of a federal forest reserve system, there was concern for how much of the public domain would be put into federal hands for management and thus not available for use and revenue generation within the states. Thus, as mentioned below, in 1907 the U.S. Congress restricted the President from establishing any new federal forest reserves in six western states without the consent of the states (Williams 1999).

4.1.2 State Ownership and Conflict

There was a great concern from earliest days of professional forestry that adequate support and guidance be given to the private forest land holders, as well as the states. Initially, the focus was on helping states to formulate their own forest policies and to assist them in scientifically surveying the forest resources under their jurisdiction. In more recent times, many states have established forest practices laws that guide private forest management. The federal government provides substantial resources to states and to the private sector, both through direct incentive payments and through contributions in kind, e.g., through federally funded research and extension and other means of sharing knowledge and creating innovations in forest management that can be applied in many states. National public goods provided to states, but paid for by the federal government, are an important aspect of the federal support for state and private forestry.

There have been many attempts by states and counties within them to take over control of federal lands. It has been a contentious issue in the U.S. since the early days. Some notable debates on states' rights with regard to federal lands related to:

- The 1907 Public Lands Convention, called by the governor of Colorado, which called for the cession of public lands to the states and for restriction of national forests;
- The Federal Appropriations Act of 1907, which among other things forbid the executive branch (the President) from creating or enlarging national forests in the West, except by Act of Congress;
- The spate of State Resolutions for federal land transfers to the states that were passed and presented by western states between 1913 and 1919;

- The so called "Sagebrush Rebellion" (the tensions at times built into violence) of the early 1980s during the presidency of Ronald Reagan, who was a strong advocate for turning some federal lands back to the states; and
- The introduction in 1980 by Utah Senator Orrin Hatch's of Senate Bill 1680 relating to transfer of land from federal to state ownership. The U.S. Forest Service, in its effort to defend its lands against transfer to state control produced an interesting draft report. It is worth noting the 10 main reasons for continued federal ownership that were in the conclusion of that report:
 1. National forests represent a heritage that is of national and not just local interest.
 2. Transfer of lands would likely lead to eventual private ownership, and subsequently a loss of access, wilderness, opportunities for solitude, and other amenities.
 3. Environmental protections would be stronger under federal management.
 4. States would bear a significant financial burden trying to manage federal lands.
 5. The transfer of management to states would, "submerge professional management under short-term political expediency."
 6. While acknowledging some public relations problems, the Forest Service had citizen participation programs in place, with more and improved programs on the way.
 7. National forests under federal care would better protect national interests, such as security and energy needs.
 8. National forest management goals include social factors that states would likely dispose of in the quest to maximize profits.
 9. "Active and passive users" support the national forests -- not just those populations closest to the forest lands.
 10. The change in management from federal to state would increase uncertainties for management of national forest resources.

In sum, the agency declared:

Transfer of land ownership drastically vitiates the Nation's Heritage and its national security needs." Many of the points raised by the Forest Service were on-target, and by 1983, the Sagebrush Rebellion in its immediate incarnation had fizzled, due to a combination of public opposition, court rulings against state control, inconsistent objectives by the rebels

themselves, and the departure of Secretary Watt.

Healthy tensions have existed and been maintained over the years between those who favored federal/central and those who favored state and more local, control and management of forest lands. Even today, there are strong opinions on both sides (cf. Thomas 1995). Mixed into these tensions related to levels of government and forest responsibilities have been the varying views on private forestry and forest ownership and responsibilities.

4.2 Federal Forest Service

Deconcentration of management within the U.S. Forest Service (as distinct from devolution of management responsibilities to states) took place throughout the early years, as federal foresters moved out into the regions and started managing national forest lands on the ground, regional administrative offices were established, experiment stations focusing on regional issues were created, and links to the states were strengthened through the Branch of State and Private Forestry, created within the Forest Service in 1908 (Williams 1999). Concerns surfaced early on regarding the adequacy of the local knowledge of what to do to manage forests properly, the resources to do what needs to be done, and the institutional mechanisms and incentives to actually carry out what needs to be done.

A key need in many countries is effective fire protection. The U.S. was and still is one of them. Before 1911, the US Forest Service could not help with forest fires in the states unless they had entered national forest lands. In 1911, the Weeks Act was passed and it allowed the Forest Service to help no matter where fires started and ended. This turned out to be a crucial change as population and access to forest increased, and fires became more of a major problem in U.S. forests.

Similar federal-state relationships were established in the case of forest pests in 1947, through passage of the Forest Pest Control Act, which recognized a federal responsibility for forest insect and disease protection on all ownerships. The Cooperative Forest Management Act of 1950 expanded the Forest Service's cooperative efforts to technical assistance and extended management assistance to all class of ownership. The provisions of this act were updated and expanded in the Cooperative Forestry Assistance Act of 1978, which was amended in the 1990 farm bill. Increasingly, the responsibilities under State and Private Forestry were delegated to U.S. Forest Service's regional offices.

4.3 Concluding Comments

As mentioned, even today, there is some public discontent with the specific ways in which the U.S. Forest Service manages the national forests. Thus, "...despite sincere efforts by the U.S. Forest Service to improve modes of public involvement, the contentiousness and frequency of conflict continues to escalate" (Germain et al. 2001). Federal agencies in general face much stricter requirements for public participation than do state and local agencies; and the federal government faces many challengers who want to see more forest land go into state and local hands so they can produce revenues for the states and more closely meet local wants (Thomas 1995).

Similar concerns with undue federal influence relate to state regulation of forest practices. For example, the State of Oregon's key piece of forestry legislation is the 1971 Forest Practices Act. It was issued as a direct result of the formulation of the federal Clean Water Act (CWA), finally enacted in 1972. The federal CWA worried the Oregon forest industry about possible unwelcome federal and/or state regulation of forest practices on private lands. The industry feared that a non-forestry agency might end up with regulatory responsibility over forest practice regulations, with uncertain and unpredictable consequences for industrial landowners. In addition, there was a widely held belief among forest industry officials that state regulation of private forest practices would be much less severe than federal regulation.

Even at the level of federal forest management, the situation is complex, with many arguments over the best way to manage federal lands. There are several agencies that manage federal forests, and their management approaches and goals often are quite similar, which leads to calls for consolidation in one department or another. There are in fact continuing proposals to merge two major forest management agencies, the U.S. Department of Agriculture's Forest Service and the Bureau of Land Management (BLM), which is in the Department of the Interior (Gorte and Cody 1995 provide the history of the debate).

The dominant focus of forest interests has shifted over time in the U.S., from an early almost exclusive focus on forests as being nuisances that need to be cleared or, at best, a source of timber and other products, to the present-day dominant view of public forests as being sources of environmental services-watershed and biodiversity protection, recreation and other amenity services. At the same time, there are those who feel very strongly that forests in a local area also should be used to generate revenues for local levels of government. The changing mix of views

concerning purposes has had implications in terms of the debates on federal vs. state and private ownership and management. There is evidence that state agency management and innovation are more likely to focus on timber provision, revenue enhancement and economic development, and federal agency management and innovations are more likely to focus on environmental protection and related services (Koontz 1997 and various references cited therein). In the specific case of timber production, the U.S. Government Accounting Office, studying in detail differences between federal and state agency management for timber production, argues that state agencies (in the states studied) sell more timber volume per acre than does the U.S. Forest Service, and because of lower costs for the states (associated with fewer and less restrictive requirements than in the federal case) they return more resources to the states (GAO 1996), despite the fact that the Forest Service is required to give back to the counties in which national forests exist a significant portion of their gross revenues in lieu of property taxes. A number of issues surround the "in lieu" payments to counties, including the fact that they are declining in many areas because of the Forest Services move away from timber production and toward environmental services, which generally results in less revenue for the states (Gorte 2000).

5.0 THE RUSSIAN FEDERATION

5.1 Background and Forest Ownership

The Russian Federation forest policy and administration have been in flux since the 1993 Constitution was passed. Russia currently is undergoing some major reform in terms of the forest sector. Thus, this brief overview focuses on and emphasizes the transition process and what is being done during it, rather than focusing on existing forest management systems which soon will change. At the outset, it is worth mentioning that a clear, consensus vision for the future of Russian forestry still remains to be established. That is required before many of the elements mentioned below can fall into place.

The Russian Federation is made up of 89 administrative units, including 21 republics, 6 krais, or territories, 49 oblasts (regions), 2 federal cities (Moscow and Saint-Petersburg), 1 autonomous oblast and 10 autonomous okrugs. Russia has by far the largest land area and forest area in the world-some 1,689 million ha of land and some 851 million ha of forest land. Thus, about 50 percent of the land area is forested. Significantly, of this total forest land an estimated 17 million ha are in plantations.

Forests play an important role in the lives of Russian people. Eight percent of the active population has employment directly or indirectly related to the forest sector. Overall, the lives of about 20 million people are directly connected to forests. Wildlife and other non timber forest outputs are important in parts of Russia. In terms of industrial products, in 2001, Russia's timber and paper exports were worth \$4,100 million and forest industry accounted for 4 percent of total outputs and exports of Russia. Potential tax revenues from the forest sector are estimated as being between \$2,500 and 5,500 million per year, which indicates why the sector is important to Russia (Debroux et al. forthcoming)

Forests of Russia have remained federal property (94 percent of total forest in Russia), but the budget to support management activities barely covers half of what is required to do an adequate job. Further, the Russian forest industry sector collapsed during the period from 1988 to 1998. Illegal logging is rampant (Sheingauz 2001 as cited in Shvidenko ibid).

5.2 Forest Governance

5.2.1 Federal Forest Service and Sub-National Responsibilities

A law passed in 1996 reorganized the Federal Forest Service (FFS) with 81 regional forest committees and 1740 district forest committees. Forests and forestry are currently regulated by the 1997 "Forest Code of the Russian Federation" as well as forest codes of various administrative units ("subjects"). Major changes are now under consideration and most agree that they are needed. Thus while the majority of Russian forests are federal property, the Forest Code of the Russian Federation delegates a number of important forest management functions for these forests to the subjects of the Federation. However, Petrov (forthcoming) points out that:

The management functions and associated authority are not accompanied by respective obligations. For example, government authorities of the subjects are able to make decisions on the allocation of forest plots for lease and free use, decisions which ultimately determine the level of income from forestry. However, the federal government is responsible for financing the protection, renewal and organization of forest use. This unequal distribution of rights and obligations leads to conflicts in forest administration and forest use. Further conflict stems from the fact that in some subjects, authority for forest administration has been delegated to local governments, which do not belong to the official system of government authorities and thus do not perform state property management functions.

Leskhozoes are state enterprises (a type of regional forest service) responsible for forest administration, harvesting, wood processing, and forest renewal. They were established in the 1930s when forests were nationalized. They remain today as state institutions (as provided in the Fundamentals of Forest Legislation, adopted in 1993). Their financial activities are regulated by the Budget Code of the Russian Federation. The leskhozoes system is in need of reform to introduce more competition, incentives for efficiency and effectiveness, and responsibilities with regard to forest management. As the private sector enters the picture more strongly, reform in the Leskhozoes is even more important (Petrov forthcoming).

5.2.2 Russian Federation Forest Management in Transition

What of the future? The World Bank has been actively involved in helping the Russian Federation with its forest reform, and it is useful to quote in full a section of a recent report (Debroux et al forthcoming) that lays out current Russian intentions:

The recently approved Concepts and the current draft laws foresee that the Forest Fund (forest estate) will remain under ownership of the Federal authority. Other forests will remain under ownership of the Subjects of the Federation (Regions and Municipalities) or other public authorities.

Those documents also indicate that sustainable management of forests will increasingly rely on contractual relationships between Owner and User of the forests. In accordance with civil law principles, these "user contracts" will set the rights and obligations of both parties. The overall orientation is to delegate management operations and market activities to forest users while focusing the role of public services on strategic and regulatory core-functions. The forest user should then take responsibility for implementation of sustainable forest management plans and payment of rental fees in exchange of secured access to the resource; while the administration will focus on law enforcement. Such orientation relies on a clear demarcation between public and private mandates, and is in line with the disengagement of the State from production and commercial activities, as applied in other sectors. Four categories of such "user contracts" or "delegation contracts" are being set up by the current draft laws: concession, lease, non-timber lease, and short-term use. Through those contracts, parcels of the Forest Fund will be rented, not sold. It is important that ownership of the forest remains with the public authority.

However, the Bank also understands that the public authority will continue to directly manage a significant part of the Forest Fund.

Not all forests can fall under user contracts because they would not, or not yet, be profitable from a private-sector point of view or because they have a protection status. Consequently, direct management should focus progressively on protection forests, young or depleted stands, forest reserves, and too fragmented or inaccessible areas.

In conclusion of the above analysis the Bank understands that forest management in Russia within the next 10-20 years will eventually fall under two main systems corresponding to two subsets of the Forest Fund:

- Under user contract management, forests will be managed by forest users under the supervision of the forest administration according to the provisions of "delegation contracts". This system will progressively become regular practice for most production forests (Group III-B of the Law).
- Under direct management, forests will be managed by the forest administration through its execution body. This system will focus on non-production forests (Groups I, II and III-A of the Law) and on production forests where concessions and other user contracts are not, or not yet, viable. Ultimately, no "final harvesting" will be conducted in these forests. In the short-term however, final harvesting in these forests will remain necessary as part of a transition period.

In each district, a forest land-use planning operation should map all forest areas of the Forest Fund according to their classification in groups I, II and III of the Law (sustainable production; environmental protection; others). Such forest zoning should be conducted by the forest administration through a participatory process including all interested stakeholders. Through this participatory process, the government as owner of the forest will determine which areas will be allocated under user contracts or remain under direct management. The forest zoning will also show the size and boundaries of proposed concession areas, and set the timeframe for their gradual allocation overtime (10-20 years).

The plan is to have one single Federal Forest Administration, with regional and district offices reporting to the federal level. However, as mentioned above, the subjects of the Federation will share some authority with this federal forest administration through regional regulation-making bodies; but such regulations would be enforced through the Federal Forest Administration. There likely also will be some form of forest implementation agencies that would be responsible for direct implementation of forest operations, where they are not

contracted out or carried out by forest users, under the auspices of the Federal Forest Administration.

The question arises: what will happen to the existing leskhozoes? The analysis of options is still underway. There are approximately 1800 leskhozoes; one per district (about 8,000); representing approximately 200,000 workers (60 percent of which are state forest guards). The World Bank (Debroux et al. forthcoming) has analyzed this question and suggests three options:

- Leskhozoes could specialize and focus on strategic and regulatory functions; or
- Leskhozoes could specialize in direct management of forests not under user contracts as described above. In these two options a new entity would need to be created to fulfill the alternate function.
- The third option would be for leskhozoes to split into two separate entities with the first being in charge of strategic and regulatory functions and the second being in charge of direct management of forests.

Advantages and feasibility of the three options still need to be carefully assessed. Careful and comprehensive restructuring plans will also need to be developed later on in order to take best advantage of the social and technical capital of the leskhozoes. The final restructuring pattern may vary from place to place across the Federation, in order to take into account the initial situation of each leskhoz and the scope for regulatory and implementing services that are needed in each district (depending on areas to be transferred under user contracts).

5.3 Concluding Comments

Under the World Bank's model of forest reform in the Russian Federation, forest ownership and thus control will be retained by the federal government, which is the opposite model from the Canadian and Australian models, where the ownership and control of forests is primarily vested with the provinces. Meanwhile, some of Russia's forests are in a deteriorated state, particularly around a number of the populated areas, but most remains in a reasonably good state, and some 26 percent is still unchanged by human activities. Petrov (forthcoming) points out that

"Throughout the last decade of economic and structural reforms in the Russian Federation, the forest sector has remained on the sidelines, retaining several attributes of the old economic system, including:

- A monopoly of public ownership in forests;
- Forest administration through, Leskhozoes,

local-level forest administration structures, which combine both public administration and forest management functions;

- A forest resource allocation system without any real competition; and
- A non-transparent financial system characterized by low returns from forest use and government funding for forest management operations."

Thus, forests during the transition period (1992 to the turn of the century) have fared about the same as before the Federation was formed in 1993 (Shvidenko 2003). Regarding the earlier history, Nilsson and Shvidenko (1998) point out that:

"the former Soviet Union paid reasonable attention to the forest sector and its development... However, authoritarian political regimes, strongly centralized management, and the lack of a sound economy made the forest sector's development insufficient. By the early 1990s, huge problems accumulated in the Soviet forest sector, and the transition explicitly revealed and enforced these problems."

There is no question about the importance of Russia's forest resources, both to the Russians and to the rest of the world. Thus, it is urgent that the Russians come together to develop a strong vision of the future of their forests, sort out the inter-sectoral issues, make appropriate arrangements for federal-subject sharing of responsibilities, authority and resources, and develops appropriate mechanisms for ensuring flexibility and response to the international community and the agreements in which Russia participates.

6.0 MALAYSIA

6.1 Background and Forest Ownership

Malaysia, a country of 33 million hectares (ha) was formed in 1963 and consists of Peninsular Malaysia, Sarawak and Sabah. It is a constitutional monarchy, made up of a federation of 13 independent states and two federal territories (the capital city of Kuala Lumpur and the island of Labuan, off Sabah). It has a parliamentary system at the federal level, headed by a Prime Minister. The King of the monarchy is chosen for a five year term from among the royal families from the nine peninsular states that have royal families.

Forests cover about 60 percent of the country's land base or some 19 million ha and are among the most complex forest ecosystems of the world. Of this total some 18 million ha are the inland Dipterocarp forests. Deforestation rates estimated for the period 1980-1990 reach some 237,000 ha per year.

Malaysia also has some 4.8 million ha of tree crops, mainly rubber, oil palm, coconut and

cocoa. Rubber plantations produce excellent wood for furniture that Malaysia exports to the global market. Malaysia is a major producer and exporter of tropical timber. Products are exported to the Far East, Europe, West Asia and America. There are more than a thousand sawmills, 177 plywood mills and some 2000 furniture mills. The sector provides jobs for about a quarter of a million people.

The Malaysian Constitution places land and forest ownership under the jurisdiction of state governments. Only in a few instances, occurring mainly in Sarawak, do forest lands belong to customary communities.

6.2 Federal Forest Management Responsibilities

While the primary responsibility for forestry lies with the states, the Constitution, under Article 94(1), ninth schedule empowers the federal government to formulate forestry legislation needed to promote uniformity between states. Each state is therefore responsible for the management of its forests, but it does so under a forest policy that is common. The authority of the federal government extends to provision of advice and technical assistance on forest management and development to the states, to the provision of training and research facilities, and control of certain other functions related to trade and industrial development and environmental impacts of forest related activities.

The National Forest Policy for the management and administration of the country's forests, covering Peninsular Malaysia, Sabah and Sarawak, was adopted in 1978 and then revised in 1992 to take account of increased concerns for the conservation of biodiversity, sustainable use of genetic resources and participatory forestry (Chandrasekharan 2003). National Forest Policy implementation is governed in the eleven states of Peninsula Malaysia by the National Forestry Act of 1984. The Act was amended in 1993 to include more severe penalties for illegal activities and wood theft.

In order to coordinate and facilitate interaction between the federal and state governments, and foster a coordinated common approach to forestry management, the Malaysian National Land Council-empowered by the Constitution to formulate national policies related to forest (and agriculture and mining) land use-established the National Forestry Council (NFC) in 1971. The NFC is a forum for federal and state governments. The NFC is the highest forest policy entity and is chaired by the Deputy Prime Minister. The responsibility for implementing the decisions issued by the NFC lies with the state governments.

A number of other organizations also relate to the forestry sector and its performance. The

Forest Research Institute of Malaysia (FRIM) undertakes forest management and forest products research. The Malaysian Timber Council (MTC), established as a Trustee Company, promotes the development of the timber industry in Peninsular Malaysia and dedicates a large share of its attention to marketing issues, increasing the wood raw material supply to the wood processing facilities and improving their technological levels. The Malaysian Timber Industry Board (MTIB) established in 1973 has responsibility for fostering the development of the timber industry. The Malaysian Timber Certification Council (MTCC) was established in 1988, operates a national voluntary certification scheme providing assurances to consumers that products are sourced in sustainable managed forests. The Federal Ministry of Primary Industries oversees, coordinates and monitors the activities of the State Forestry Departments, FRIM and the MTC. A number of other organizations exist at state levels, with significant forest management responsibilities or inputs. These include the Sarawak Timber Association, the Sabah Timber Industries Association, and the Sarawak Timber Industry Development Corporation. The federal government taxes processing industries, both through export taxes and through income taxes.

6.3 State Forest Management Responsibilities

Under the Malaysian Constitution, land is defined as a state matter. Each state is empowered by the Malaysian constitution to enact forestry laws and formulate forest policy independently. As mentioned, overall guidance is provided by the National Forestry Policy (NFP). In Sabah, the Sabah Forest Enactment 1968 provides the legal basis to ensure the status of the Permanent Forest Estate, while in Sarawak the Sarawak Forest Ordinance 1954 provides the necessary legal framework.

The forests of Malaysia are divided into two main groups, the Permanent Forest Estate and Stateland Forest areas, also commonly called Conversion Forests. The former is the area of forest that is intended as permanent forest for the benefit of the citizens and the latter is the forest that can be converted to other uses, including plantations. In more recent times, there have been efforts developing to incorporate the Conversion Forests back into the PFE. The PFE comprises 14.3 million ha, of which 3.7 million ha are broadly designated as protection forests (soil and water protection as well as amenity forests), and 10.6 million ha are available for productive purposes. An additional 2.1 million ha of forest outside the PFE is protected in National Parks and Wildlife Sanctuaries. Stateland Forests presently

comprise around 3.5 million ha (FAO 2001). The state governments directly tax forest users through concession fees, royalty taxes on volumes of wood harvested, and income taxes on incomes earned from forest activity.

6.4 Malaysia's Concession System

Malaysia has a rather unique concession system, where the private sector not only is involved in timber harvesting, but also with management of a state's forests on a sustainable basis. FAO (2001) describes the situation in Sabah, for example:

Opportunities for joint activities between government and the commercial private sector have been made possible through a 1997 initiative of the State Government of Sabah Malaysia. The government has established 27 Forest Management Units (FMUs) with the objective of ensuring sustainable forest management (SFM) in the state. Each FMU is about 100,000 hectares in size and management agreements with private companies offer secure tenure for 100 years. The FMUs are generally logged-over areas or forests currently under logging. The private sector is invited to participate in the management of these FMUs using long-term SFM principles, including development of conservation, natural forest management and tree-crop plantations. Forest management plans must be prepared and approved by the Forestry Department. Similarly, other plans for harvesting, reforestation and other activities have to be prepared for approval by the Forestry Department before being implemented.

Each forest concession area or forest management unit, whether inside or outside the PFE, must have a Forest Management Plan. FAO (2001) points out that ...since the 1950s, the development and implementation of forest management working plans has been mandatory. The plan contains a description of the area, the objectives of management or prescriptions on how the management unit is to be harvested, the species to be removed, the minimum cutting diameter limits, the annual allowable harvest, penalties for harvesting damages and a variety of other prescriptions. Plans that encompass harvesting must specify the number of trees to be left behind, road construction prescriptions, and measures taken to minimize soil erosion and other residual damage.

It is not clear the extent to which the management plans are uniformly checked and implementation is supervised and monitored.

6.5 Concluding Comments

The focus of forestry in Malaysia in the past was dominated by timber interests and the desire of the country to earn significant revenue from processing and export of timber and forest

products. In more recent years, there appears to be a shift in focus more towards sustainable forest management for multiple uses, including environmental services. In this regard, the country has prepared national level criteria and indicators for sustainable forest management, has developed a domestic forest management certification system, and has a relatively robust forest regulatory and monitoring system. All of these are jointly put forth and administered by state and federal governments.

The extent to which the move towards sustainable forest management for multiple uses is a real shift in aims (rather than rhetoric) is a matter of debate, although there is some evidence of real progress in terms of forest conservation. For example, a National Conservation Strategy has recently been formulated and incorporates Malaysia's forest conservation objectives and, as mentioned a national certification body has also been established.

Malaysia has come a long way from its early rampant forest exploitation days toward a stable system of sustainable forest management and a balanced influence of federal and state governments in ensuring that both economic and environmental benefits flow from the country's forests. Malaysia has made illegal logging and other forest activities a serious offence: the amended National Forestry Act of 1993 provides for very stiff penalties and long prison terms for illegal activity, and it empowers forest rangers to call in police and even the armed forces to enforce the provisions of the Act. Although these measures are in place they may not be employed on a regular basis, and illegal logging is still rampant.

7.0 NIGERIA

7.1 Background and Forest Ownership

Presently, forest reserves cover less than 10 percent of Nigeria's territory. Total forest area is around 13 million hectares (ha) mostly of the savanna woodland type. The southern rain forest, the source of the country's timber resources, covers only 2 percent of the total land area of Nigeria. It is being depleted at an annual rate of 3.5 percent per year, implying deforestation on a large scale. The persistent decline in the national forest has been a source of concern to the federal government. In order to arrest this situation, the government has embarked on several programs and projects on reforestation and afforestation. In fact, it is estimated that there are some 700,000 ha of plantations. However, over the past 20 years, plantation programs have been at a stand-still except in a few states in which international agencies have been supporting planting programs.

Nigeria has a long history of forest management and exploitation. In 1899 the first Nigerian Forest Department was created to deal with timber and rubber trade and to establish forest estates. The British colonial administration set up forest reserves, largely for timber production, and the remnants of these reserves constitute the present forest estate of Nigeria.

Nigeria is one of a growing number of countries in Africa that has, at least on paper, a functional federal-state-local government system of forest governance and management. Responsibilities, authority and resources are shared, at least nominally, between the central or federal government and the states and local government authorities within the federation. The federal system of governance was adopted in the 1954 constitution and later reaffirmed in the 1964, 1979 and, most recently, the 1999 constitutions. However, the Constitutions did not spell out forestry duties for different levels of government. The federation as it currently stands has three tiers: the federal government; 36 state governments; and 774 local governments. To keep the system in perspective in what follows, it has to be looked at in the context of the fact that a succession of military governments ruled Nigeria for 31 of its 40 years of independence. A democratically elected government at all three levels-federal, state and local-took office in May of 1999.

As in the case of other federal systems of government reviewed here, the first federal constitution of 1954 gave the authority and responsibility for forest management to the constituent regional governments (3 at the time). States were formed out of the regions and there were 36 within the federation by 1996. They were encouraged to develop their own forest laws and policies in the context of a broader National Forest Policy adopted in 1988. However, while the 1988 Policy attempted to involve state and local government authorities (LGAs), no state has yet derived and published policies, programs or plans that fit within the national perspective.

7.2 Role of Federal Government

The central organ of Nigeria's forest governance at the national level is the Federal Department of Forestry. The main functions of the department include: formulation of national forest policy; land-use planning; forestry development and environmental management; the promotion and funding of projects of national interest; the co-ordination and monitoring of forest activities arising from internationally funded projects; research, training and education; trade and industrial development; and institutional development. The federal government is only involved in the

administration of forest revenue in the eight national parks in the country, where gate fees are paid by tourists and where there is some organized harvesting of over-populated animals.

7.3 Role of Sub-National Governments

The 1999 Constitution gives shared control over the development of natural resources to the local governments and the states. However, the language used is very vague and there is confusion in the respective mandates between local and state governments and this leads to inefficiencies and inaction in many cases. Further ineffectiveness of state and local governments is caused by the highly unpredictable and uncertain nature of fiscal resource transfers from federal to state and local governments. This is compounded by low capacities in many state and local governments, with many public agencies being weak in terms of internal controls and technical skills. This is particularly a problem in the more recently created states (World Bank 2002).

State governments award timber concessions on the forest reserves within their states. Those harvesting timber pay royalties to the state. As pointed out elsewhere, "...most state governments have tended to treat forest reserves as a resource for government patronage, rather than as elements of national or state patrimony" (LTS 2001). Oftentimes, the revenues from concessions are shared between state and local government and traditional community rulers, but not in any fixed proportions. In theory much of the forest land is considered to be owned by the local communities, held in trust for them by the state governments. In theory, part of the revenues from use of the forest goes to the local communal landowners, although in practice the funds often get diverted to others. For this reason, local communities often have no incentive to prevent illegal logging and often collude with the illegal loggers because they can get more out of such collusion (LTS *ibid*).

7.4 Forest Revenue and Financing System

Since one of the key, major problems facing Nigerian forestry is the inadequate and often untimely financing for forestry, it is worth providing a bit more detail on the forest revenue systems and financing issues in Nigeria.

Historically, public funding of forestry projects and programmes in Nigeria has been inadequate and untimely at both the level of the Federal Government and state governments. In some states, it is as low as 1 percent of the annual state budget (Federal Department of Forestry 2001).

A fairly recent, thorough and detailed review of this subject is available (Federal

Department of Forestry, 2001) and is drawn upon in the following paragraphs

Since the late 1970s, the collection of forest revenues has been primarily the role of the State Forestry Departments in Nigeria. The structure of the forest revenue system in Nigeria must, therefore, be viewed from the different policies of the 36 individual states and the Federal Capital Territory (FCT). However, it turns out that the structure of the forest revenue system in most states contains the following common elements:

- The authority to regulate and collect forest revenues;
- Various models for assessing forest charges;
- A variety of types of fees are used;
- Different levels of charges exist in different states to reflect local conditions;
- Concession arrangements for long-term and short-term forest harvesting; and
- Revenue sharing formulas.

Charges differ across Nigeria because forests are managed by the Forest Services of autonomous state governments (and in some cases local governments in the Northern States). Each management authority is free to determine both the level and structure of forest charges and to vary these over time as it sees fit. This results in great differences in forest charges for some species. The authority to set charges is vested in the State Executive Councils, which receives technical advice from the Forestry Departments. However, there are no clear mechanisms for setting forest charges in many state Forestry Services in Nigeria. Charges are set administratively with no stated period of review. Forest charges are not regularly updated. State Forestry Departments put a lot of pressure on state governments for regular upward review of charges, but these are often turned down by governments due to pressure from timber merchants, who influence the governments and lobby them to refuse upward reviews.

All revenues have to be paid into state accounts and, as such, become very difficult to retrieve for forestry policies and programs. Funds that are meant to be reinvested in the sector to improve management of the forest are never forthcoming. By and large, the forestry sector waits endlessly for government's to allocate funds, despite the fact that revenues are generated all the time. Thus, the real problem with revenue administration is the fact that in many states the forest resource is largely seen as a supplier of regular funds into the treasury, rather than as important natural resource that should be developed through investment. Thus, public funding for forestry development relies entirely on annual

allocations from government. The State Departments of Forestry are allocated funds each year to cover salary and wages as well as other operational or overhead costs. However, the amounts allocated are entirely inadequate to deal with the issues at hand.

Some states have adopted models of forest revenue sharing between state and local government and forest funds. Each state is independent of the others in terms of policies concerning the forestry sector. However, based on the historical relationships between states, some groups of states have adopted common models of revenue sharing. It should be noted that, although these models are set-out in legislation, they often are not followed.

In sum, the government recognizes itself that the existing forest revenue system is not effective:

Because of obvious administrative and management lapses, illegal harvesting of forest products is rampant and it is estimated that more than 90 percent of minor forest product producers and about 40 percent of timber producers avoid payment of forest charges. The forest monitoring system to control exploitation and transportation of forest products has broken down, because of a lack of patrol vehicles and an inadequate number of staff. Moreover, the untrained forest staff is not motivated and equipped enough to enforce the laws concerning forest exploitation. Most often, forest products are exploited by rural communities bordering the forests without paying the necessary charges for permits to collect the products.

The problem of the forest revenue system in Nigeria is basically one of market failure. The setting and collection of forest revenues is determined by the government and is not based on the interaction of supply and demand. Thus, because the market is not used to fix suitable tariff rates, the charges on forest harvesting do not result in prices that would equilibrate wood product demand with the sustainable level of supply. Another problem concerns the sharing of forest revenues. In theory, government is supposed to share a percentage of revenues collected from outside forest reserves with local communities (25-40 percent in the savannah areas and 30-35 percent in the main forest areas). However, in practice, forest revenues are not shared with stakeholders.

Also, in most states, forest revenues are not administered through an independent Forestry Commission, but are paid into the state's consolidated revenue fund. This money is not usually made available to the forestry sector for forestry management and development. (Federal Department of Forestry 2001).

The frequent revisions to fiscal policies that have taken place in the past have been largely

due to changes in government and most of these changes have not favored the forestry sector. By the period 1989-1992, fiscal discipline in Nigeria started to break down and huge deficits started to accumulate. The fluctuations in policy have exerted varying degrees of pressure on the forestry sector. The major areas where fiscal policies in other sectors affect the forestry sector are as follows: food security; domestic energy supply; housing; trade; and industrial development. Policies in each of these areas have had a varied impact on the sustainability of forestry management.

7.5 Forest Management

Originally, the forest reserves were administered by local government authorities (a tier below the state governments), since they represented the local community forest landowners. Gradually, and starting in the mid sixties, the state governments started taking over the functions of the central and regional governments and the authority of the local governments declined. Local government authority (LGA) staff were often absorbed into the state forest services or commissions as the states took on a stronger management role for forests.

There was a period in the late seventies when the central government started to strengthen the LGAs again. The LGAs were to be given increasing autonomy by the states and were initially given 10 percent of the federal expenditure in the states. However, the devolution of power to the LGAs fizzled in the early eighties and they remained effectively under state control, mainly because their federal funds were routed through the state governments (Caldecott et al. 1996). There were additional attempts to empower the LGAs, but states have effectively held onto the control over forests. The forest management decentralization problems in Nigeria are made much more complex because of the strong roles that the many local communities and community groups have had in Nigeria. Yet, as mentioned above, local communities and community interests often are ignored by higher levels of government in the case of forest revenues. One of the problems that has arisen is that while the states have the executive authority to manage the forests, their funding is declining. They depend heavily on federal funds (most derived from oil revenues) and thus there is a great deal of uncertainty introduced. At the same time, LGAs and the federal government controlled proportionally greater resources (Caldecott et al. 1996). Yet, as of today, despite the increased funding available to LGAs, none of them have yet demonstrated real concern for sustainable forest management. As in the case of federal transfers to the states, transfers to

LGAs are not sector specific. LGAs set their own spending priorities.

Further confusing matters has been the proliferation of new entities and organizations that all have some stake in and/or claim on forests and related resources. Thus there are (LTS *ibid*): an Energy Commission that deals with fuel wood, the National Agricultural Lands Development Authority that deals with land clearing, a national council that deals with wildlife, a Federal Environmental Protection Agency that deals with wildlife and various other forest related matters, a River Basins Development Authority that deals with some forest areas, a National Parks Board that deals with some forest areas, etc. The Federal Ministry of Trade controls trade policy related to wood and wood products. The Federal Department of Agricultural Land Resources (FDALR), on behalf of the Federal Ministry of Agriculture and Rural Development (FMARD), is articulating agricultural land use and practices policy for the country. In recognition of the changing strategy for natural resources management, the national forest and wildlife policy is also being reviewed to make its implementation more participatory, while a national wildlife forest law is being developed with involvement of all stakeholders. Furthermore, states are being encouraged to derive their legislation from the national framework (United Nations 2001).

7.6 Concluding Comments

The uncertainties that have plagued the Nigerian forestry sector for many decades continue. Thus, at the 41st Session of the National Forestry Development Committee (NFDC), held in Minna this year, there was strong dissatisfaction that the Federal Ministry on Environment still had not convened a meeting of the National Council on the Environment to take up the National Forestry Policy and legislative reviews. (Njoku 2003). These have been scheduled for a long time.

Nigeria recognizes the problem of constant flux in its overall program dealing with environmental management. For example, a recent report from the Federal Ministry of Environment (1999) states that, in the case of combating desertification, efforts "...have been adversely affected by frequent shifts in policy by government. Such policy shifts have been observed to be, as frequently as leaders-come-and-go and such shifts are dictated by the country's economic fortune or misfortune." The same fluidity of policies and approaches characterizes the country's forestry programs, although the history of flux is much longer than in the case of formal efforts to deal with desertification.

The National Forestry Development Committee session in Minna was attended by directors of forestry from the 36 states of the federation, ministry representatives, NGOs and community based organizations. Many key policy issues were considered, including progress on the draft National Forest Policy and National Forest Act, wildlife development and endangered species management, biodiversity conservation, etc. The participants urged the Federal Department of Forestry to expedite completion of work on the forest policy and the National Forestry Act. Discussions centered around issues such as funding, illegal forest activities, deforestation (still running between 350,000 and 400,000 ha per year) and the need for closer relations between state and federal forestry authorities (Njoku *ibid*). A state of flux exists, but opportunities also exist for Nigeria to organize its forestry more effectively and efficiently and to rationalize the activities of and relations between community, private sector, state and federal entities involved in forestry. Stronger links to the international community and the international conventions also are planned and are desirable.

Forest Management in Nigeria today is mostly limited to government programs. All the forest reserves, which form the bulk of the nation's productive forest, are under the management of the states or local governments. The forest outside forest reserves (free areas), where most of the wood products in the market come from, are not put under any form of systematic management. The forest reserves have for some time been seriously neglected and have received little or no improvement in terms of investment and management. Many of the large plantations of the 1950s, 1960s and early 1970s were clear-felled in the 1990s. Aside from the pulpwood plantations of 1976-82 and the African Development Bank/World Bank assisted projects in two southwestern state, there have been no large plantations established (Adeyoju 2003).

The United Nations Environment Programme and CIFOR (1996) suggest that there needs to be a stronger role for the local communities and the private sector in forestry development and conservation in Nigeria:

Though the forest resources are treated as a source of revenue, the government at all levels has not invested enough in their development and management. Equally, they lack the needed manpower and funds to clean and patrol estate boundaries. The government alone is therefore incapable of afforestation on a sufficient scale to guarantee future wood supplies. There must be reliance on individuals and communities, particularly in rural areas, to meet a substantial part of their own needs. The private sector must

be involved in the development of forest estates and the management of existing ones to ensure future industrial wood supply.

Nigeria faces many challenges in terms of moving ahead with the sustainable management of its forest resources. Chief among these is how to stem the rapid rates of deforestation and forest degradation, to a great extent caused by rapid population growth and pressures from poor people who depend on the forest for fuel wood, land and other outputs, but also caused by high incidents of illegal forest exploitation. Increasing institutional capacity, fiscal stability for forestry programs, and the effectiveness of federal-state-local government relations are additional challenges. A recent World Bank country sector background report for a program dealing with Nigerian local empowerment and environmental management (World Bank 2002) stresses the challenge of developing a strategy for "...enhancing governance capacity (i.e., transparency, accountability, inclusiveness and participation) amongst local governments and states." The report stresses that the strategy should focus on incentive based approaches.

In sum, the establishment of the Federal Ministry of Environment, with three technical departments responsible for environmental issues (such as desertification, environmental degradation, forest management and conservation) reflects the Federal Government's commitment to sustainable forest management. The new focus of forestry management has been to review the national forestry policy, introduce national legislation for forestry and wildlife, review state forestry legislation, develop and upgrade forestry management skills, develop forestry research, train and re-train forestry workers and upgrade national forestry resources and support centers. The present administration has deep concern for forestry development. The support to the sector ranks high in priority rating. The main concern of government is to sustain the environment through afforestation programs, in order to control desert encroachment, soil erosion and for forests to continue to provide goods and services to the economy.

In the various laws passed since the original constitution, it was reaffirmed that the states had a high level of political autonomy, but few opportunities to generate revenues. Rather, they depended on the federal government for funds. Thus, states competed for federal funds. The paradox is that on paper the federal government is not strong in relation to the states in terms of control and management of forests, but in practice it is strong because it controls the money. The tensions between federal and state and local governments have resulted in a less than optimum level of civilian participation in government. Rather, the

military/central government has dominated the political scene (Caldecott et al.1996).

8. INDONESIA

8.1 Background and Forest Ownership

Indonesia is a vast country, the world's largest archipelago, with more than 17,000 islands covering 1.91 million square kilometers (sq km) lying in an area that measures some 2,000 km from north to south and 5,000 from east to west. With some 212 million inhabitants, it is the fourth most populous country in the world. It is an immensely diverse country with more than 300 ethnic groups. Two-thirds of the population resides in Java, which is the hub of economic and political power.

The country has some 100 million hectares (ha) of tropical forests, second only to the vast expanses of the Amazon and the Congo Basin. The low lands of Sumatra and Kalimantan are among the most biologically rich and most diverse ecosystem on earth. According to government figures, protection forests cover some 33 million ha, while some additional 21 million ha are conservation forests. Production forests comprise about 58 million ha.

Forest resources generate an output that in 1996 reached some \$30 billion or about 10 percent of the GDP and officially employed some 800,000 workers and an undetermined but substantial number of informal workers.

There are more than 10 million ha of forest plantations. Since Independence some 65 million ha have been lost to deforestation, including some 10 million ha that literally went up in smoke during the great Indonesian forest fires of 1998. Current deforestation rate estimates are uncertain but it may be in the range of 1.5-2.5 million ha per year.

8.2 Role of the Central Government

For more than three centuries, the Dutch ruled Indonesia until the Second World War ended it. The Dutch colonial government adopted a system of forest administration that later prevailed in independent Indonesia. This system was based on centralized government control and management.

Sukarno declared independence in 1945 and Independence was officially recognized in 1949. A new Constitution in 1950 established the country as a Unitary Republic. The Constitution divided Indonesia administratively into provinces and territories, now numbering 33. Each province was divided into regencies/districts, sub-districts and villages. Decision-making powers were concentrated in Jakarta.

In 1957 after regional attempts to obtain greater autonomy, and following civil unrest in Sumatra, Sulawesi and West Java, Sukarno

declared martial law. Ensuing economic collapse and intense conflicts induced General Suharto to take power in 1965. His long government, under the New Order, afterward became increasingly centralized and authoritarian.

Several attempts to establish decentralized governments that would grant greater autonomy to demanding and eager regions were, for some reason or another, largely ineffective and were eventually discarded. Law 5 of 1974 raised the issue of regional autonomy again but was never implemented. Independent Indonesia was one of the world's most centralized countries. The degree of concentration of power is illustrated by the fact that in 1999 the central government collected 94 percent of all fiscal revenue and 60 percent of the sub-national government's budgets were financed by transfers from the central treasury. This all changed with the fall of Suharto.

With the New Order ending, Suharto leaving government and the installation of a democratic government in early 1998, calls for reforms across the board intensified and some were quickly put in place (Reformasi).

In 1999 the government approved two laws, which were to be implemented at the beginning of 2001, that directed a process of massive fiscal, political and administrative decentralization to provinces (propinsi), districts (kabupaten, local government in rural areas) and municipalities (kota, local governments in urban areas). Reforms in the forest sector would follow this drive for the vast reformulation of the structure of government in Indonesia.

Law 22/1999 on Regional Governance, gave autonomy and allocated a great deal of responsibilities to sub-national governments reserving for the central government a few tasks that could only be accomplished at the national level, including defense, security, justice, foreign affairs, fiscal affairs and religion. The central government retained the supervisory function of regional governments' activities to ensure national policy coherence. The central government also had the power to cancel local regulations if these were deemed to be against the national interest. Regions had the option of appealing these decisions to the Supreme Court.

Districts, considered closer to the people and therefore more apt to promote democratization, were assigned primary responsibility for administrative and regulatory functions, with the provincial governments playing a secondary role. Districts were allocated "obligatory sectors" for which they have prime responsibility for management. Environment, forestry and agriculture were among these. Nevertheless the central government retained control over natural

resources conservation thus creating the possibility for overlapping responsibilities.

Provinces were assigned a double role as autonomous regions and as administrative regions under the control of the President. They have the authority to manage inter-district matters and to carry out certain matters delegated to them by the President. The possibility of decentralizing greater powers to the provinces proved to be politically controversial as the provincial governments were judged by some as too identified with the political and power structures that prevailed during Suharto's New Order. Also, some judged that decentralizing powers to some provinces would further fuel centrifugal political forces, which would threaten the unity of the Republic.

In concert with the decentralization of functions and responsibilities to districts and provinces, Law 25/1999 mandated a substantial reallocation of financial resources to the regions. During the first year of implementation, the regional share of government spending jumped from 17 percent to 30 percent, a proportion that is expected to rise further to some 45 percent (World Bank 2003).

Further, under the decentralization law, heads of local governments (previously political appointees chosen at the central level) must now be elected officials selected by and accountable to the locally elected parliament.

Awareness of the shortcomings of previous decentralization attempts and the extraordinary political circumstance of the post-Suharto Reformasi period, created favorable conditions and pressures for a "big bang" approach to decentralization, with most of the effort being implemented in short period of time. Deadlines were tight. Within two years from approval of the decentralization laws regulations were expected to be in place. The decentralization drive became intense and practically irreversible when 2 million civil servants, or about two-thirds of the central government staff, were quickly transferred to the local governments. Today, about three quarters of all government personnel work in the regions as opposed to only 20 percent before decentralization. In 1999 local elections were held in conjunction with national elections only two months after the decentralization law was approved (World Bank 2003a). Indonesia transformed itself from one of the most centralized countries in the world to one of the most decentralized.

With scant preparation and with the government distracted by the rapidly evolving political situation prevailing at the time, characterized by struggles between the executive and legislative branches of government, some degree of confusion and

disorder was to be expected. The process was much too drastic and massive to be conducted in a smooth manner.

Given these conditions it is surprising that the decentralization process did not completely unravel. In fact, some of the expected benefits of decentralization are already becoming visible. The process is fundamentally changing accountability in government and the nature of the relationship between citizens and governments. In addition to the previous single link with a distant central government, decentralization offers local populations routes of communication and influence to local governments as well. In many cases, although not always, this appears to have increased accountability and better service delivery by local governments (World Bank 2003a).

8.3 Forest Governance

The 1950 Constitution established that forests were to be managed by the government in function of a vaguely defined "national interest" and paved the way for concentrating the control of forest lands in the central government. In 1967 a forest law firmly established total central government control over forest lands and in 1974 a Consensus Forest Land Use Plan placed some 144 million hectares of forest—an area equal to three-quarters of the national territory—including 90 percent of the Outer Islands under the exclusive control of the Ministry of Forests. Traditional rights of forest communities and other groups that had claims to lands, but no legal ownership title, became legally invisible thus creating the foundations for future conflict.

The centralized and concentrated structure of forest administration led to less than transparent allocation of forest concessions to an also concentrated group of firms: by 1998, at the time of the fall of Suharto's New Order, 12 companies closely associated with the political and military elite controlled virtually all of Indonesia's 60 million ha of forest concessions. Lack of transparency, so often linked to concentrated and centralized structures of forest administration, created a fertile ground for the proliferation of illegal activities and for corrupt deals. Well-connected concessionaires routinely violated the terms of their concession contracts with impunity, going to the extreme of invading some of the country's most celebrated national parks, the Gunung Leuser, Tanjung Puting and the Kerinci Seblat (EIA 1999; EIA and Telapak Indonesia 2001; World Bank 2001). At the end of the decade, some 70 percent of the forest harvest was carried out in illegal ways and deforestation had wiped out at least 65 million ha—2.2 times the size of Italy (FWI/GFW, 2002). This system of administration of forest resources has been blamed for the

great forest fires of 1997-1998 that extended for 10 million ha, contaminating the regional environment, causing great health hazards and extraordinary damage to the environment and the economy.

Today, after the decentralization drive, management of most forest resources falls under the responsibility of district governments. Thus, the management of the money-making forest concessions falls under district responsibility. In those cases where large forest concessions spill over districts boundaries, districts can either establish joint administrative arrangements or request the provincial government to manage the concession in their behalf. Provinces can also take over functions the districts cannot manage, a provision that is likely to cause increasing conflicts.

With regard to fiscal matters, the sub-national governments can now retain as much as 70 percent of the revenues from forest exploitation (the proportion is different for other natural resources) and the centre must allocate 25 percent of its revenues to districts and municipalities (90 percent) and provinces (10 percent, see Table below). Local governments were instructed to actively search for their own sources of financing.

Problems in the forest sector abound. Decentralization laws have a number of inconsistencies and contradictions with several other pieces of legislation of the intricate Indonesian legal framework. This weakens effective forest resource management and accountability. The new Forestry Law, enacted in 1999 does not take the decentralization laws fully into consideration, as there were no filters in the legislative design process to ensure that the forest law, or other laws, for that matter, conformed to the decentralization legislative framework. As a result, the Forestry Law is centralistic in its approach, while the decentralization laws make emphasis on bottom up planning, decision-making and program implementation. The Forestry Law is thus favored by the central ministry while districts prefer to invoke the regional autonomy laws that give them greater powers. Frictions between the central and the local governments are inevitable.

While laws were enacted, the expected regulations have been slow to come. By the time regional autonomy was supposed to start, on January 1, 2001, many of the key regulations were not in place. Regulations of the Forestry Law had not yet been issued at the time of this writing. The application of the new Forestry Law would require a minimum of 21 Government Regulations, none had been issued three years after the law was enacted (Sembiring 2002). All this left much of the de

Revenue Sharing Between Central and Regional Levels Related to Forestry Activities

Source of Revenue	Provincial Share (%)		District Share (%)	
	Central Share (%)	Producing provinces	Non-producing provinces	Non-producing districts
PBB -Tax on property of land and buildings*	10.0	16.2	64.8	
Tax on land and building transfer	20.0	16.0	64.0	
Contribution of forest concession (IHPH)	20.0	16.0	64.0	
Provision of forest resources (IHH)	20.0	16.0	32.0	32.0
Reforestation fund (DR)	60.0	40.0		
Total revenue of central government (Dana Alokasi Umum)	75.0	2.5	22.5	

* 9% is set apart as collection fee.

Note: The current tariff levels approximately are: PBB: Rps 2,700/ha; IHPH: Rps 22,500/ha; IHH: Rps 64,000/cum for Shorea spp and Rps 36,000/cum for mixed species; DR: US\$14/cum for Shorea Spp and US\$12/cum for mixed species.

Source: Prof. Herman Haeruman 2001, as quoted in Chandrasekharan 2003

facto decision making responsibility to the discretion of untrained and unprepared local officials, mainly at the district level. Without clear rules of the game as to who had authority to do what and at which level of government, conflicts multiplied.

Local governments are uncertain about the precise functions they are supposed to discharge to whom they are accountable for delivering them, and about a number of key functions. Beyond uncertain laws and missing regulations, many districts were not equipped to absorb the new responsibilities. They did not generally have the organization and the technical as well as administrative skills to manage forest sector activities. An important concern is the availability of staff to make the decentralized system work. In fact many of the staff in the regions has been trained and discharged functions in the past that were part of the previous intensely centralized system of government.

Due to the lack of clarity about responsibilities and authority, disputes among levels of government have proliferated. For example, since the circumstances under which concession rights and timber licenses that can be issued by various levels of government are unclear, districts, instructed to search for their own sources of financing, issue timber licenses on lands already granted by the central Ministry to concessionaires. In an environment of legislative uncertainty each level of government claims authority to do certain things and vigorously rejects rights from other levels of government (CGI 2002). Predictably, districts tend to go after their own local priorities and national laws, including the forestry law that may reduce their freedom of action are routinely ignored. The refusal to follow national laws is encouraged by the lack of

capacity of the central government to enforce them. In the forestry sector, decentralization has resulted in the breakdown of central command and control structures and loss of national policy coherence (Contreras-Hermosilla forthcoming).

In these circumstances, and fearing appropriation or interference by other levels of government, forest resource-rich districts have a powerful incentive to accelerate resource exploitation, giving only secondary consideration to the long term consequences of unsustainable practices. Long term utilization and management plans are conspicuously absent. This is hardly unexpected. Experiences in other countries show that cash-strapped local governments that are increasingly responsible for their own revenue generation activities tend to exploit resources unsustainably (Dupar and Badenoch 2002). Business and security forces have allied themselves with local government issuing harvesting licenses in a fast race to obtain quick financial benefits. Controls over the terms of contracts are weak and therefore the incentives for illegal logging have increased. Corruption is widely suspected to be behind many of these deals.

The Ministry of Forestry has resisted regional autonomy because it threatens its control over projects, resources and economic as well as political power. Predictably, there have been conflicting attempts to re-centralize decision-making powers (See Box 2).

8.4 Concluding Comments

The Indonesian experience illustrates that the forest sector, even in a country where it has great importance, will likely follow decentralization initiatives rather than initiate them. The forest sector has been put under enormous pressures coming from outside the

BOX 2: Decentralization and Conflict Between Layers of Government

In 2000 the Government issued a decree on the Criteria and Standards for the Issuance of Timber Utilization Concessions and Timber Harvesting Concessions. District, Provinces and the Ministry could issue Timber Utilization Concessions and districts could also issue permits to individuals or community cooperatives for a maximum concession area of 100 hectares. Because of the ensuing abuse of the authority granted by this decree, particularly through the issuance of multiple small concessions, and the resulting rapid deforestation, the Ministry cancelled the decree 16 months after its enactment. Rural district chief executives were stripped by the Ministry of their power to issue concession licenses.

However, the districts have rejected the cancellation of this authority. Says H.H. Syaokani, the Kutai Kertanegara Rural District Chief Executive who is also the Chairman of the All-Indonesia Association of Rural Districts Governments: "For us there is no problem, as we already have issued local legislation that cannot be revoked by a ministerial decree. We'll just ignore this Minister of Forestry decree. In my opinion it does not exist. I am more accountable to the people than to the power holders. The local governments are being treated like they can be ordered around". Other local governments are adopting a similar attitude. "This Minister of Forestry and Plantations decree does not form part of our legislative hierarchy... The authority over forest management should rest with the local governments..." says Djuharman Arifin, the deputy speaker of the Riau local legislative council. Deforestation has continued at a high pace and is now more extensive than before with conservation areas and protection forests being harvested openly.

Source: Effendi 2002

sector. The decentralization process has not been easy for the Central Ministry of Forestry, which has been forced to surrender many of its powers to local governments. Decentralization implies a reallocation of power among agencies and levels of government and it is natural to expect that those that lose power will resist reforms. Decentralization processes must therefore consider ways to reduce this resistance.

The confusion created by an imprecise and conflicting legal framework paves the way for ad hoc, discretionary and arbitrary decisions and for intense conflicts between levels and agencies of government. It also creates the conditions for corruption. Uncertainties about the allocation of power and responsibilities also generate strong incentives for local governments in rich forest areas to deplete resources and to move away from sustainable forest management practices.

Even if rules are clear, the Indonesian experience shows that forest resources will not be properly managed if local technical and organizational capacities are not available or cannot be created in a short period. While the central government made a genuine and effective effort to transfer massive numbers of government staff to regions, many required re training in the ways a decentralized system of government operates.

The decentralization process has created unintended high levels of uncertainty about who is empowered to do what. High levels of administrative uncertainty have contributed to create powerful incentives for local

governments and other actors to race to obtain rents from accelerated forest exploitation before somebody else can obtain control of forest resources. In areas where resources are rich, this race to the bottom is naturally more intense. This again underscores the need for clear rules of the game and for safeguards that would ensure the stability of the forest resource base.

A related source of uncertainty is the unclear situation of property rights affecting local traditional communities. While traditional rights are recognized in theory, in practice communities have no rights to their traditional lands. As in the case above, this uncertainty creates powerful inducements for resource depletion rather than for sustainable management.

9. INDIA

9.1 Background and Forest Ownership

India is the world's seventh largest country, has a population of more than 1 billion inhabitants, but only about 1.8 percent of the world's forests. Pressures on forest resources are considerable. On average there are less than 6 hectares (ha) of forest per 100 people, about one tenth of the world figure. India has 433 million people living on less than \$1 a day, more than one-third of the poor of the world. Three-quarters of them reside in rural areas and as many as 200 million, half of them forest dwellers, depend on forests for their livelihoods (IIED 2000). Some 170,000 rural villages are

near forests (World Bank 2000a). Forests also support some 270 million head of livestock (IIFM 2003). These various demands have resulted in intense degradation of forests, lands and water resources in many parts. There is substantial encroachment in many places. Deforestation estimates are uncertain because of the lack of comparable inventories over time, but it is thought to be considerable in many places. During 1980-1990 deforestation of the natural forest is thought to have been some 340,000 per year but according to more recent FAO figures this rate seems to have diminished. The country also has some 33 million ha of forest plantations, mainly eucalyptus and acacias. Many of them are in poor condition.

97 percent of all forests in India are the property of the government and most (85 percent) are managed by the state governments, while the rest belongs to communities and private owners. Government forests are managed either directly by state institutions or granted in usufruct to private entities or to communities under a variety of arrangements. Revenues from forest use accrue to the state governments. Trees are grown under private ownership only on farms or on community lands. Although most forests belong to the state, local populations make intensive use of all forests, public and private.

India is one of the 12 mega diversity countries of the world with about 7 percent of the world's biodiversity. There are 16 major forest types, from alpine pastures in the Himalayas to tropical rainforests, and mangroves in coastal areas. Water and wind erosion, water logging and excessive salt degrade nearly half of the land.

9.2 Structure of Government

India has had a federal system of government since Independence and the constitution grants considerable autonomy to the constituent states. India has 35 states and Union territories. According to the Constitution of independent India, states are responsible for the implementation of programs and national policies dictated by the center. Many states developed their own forest policies to adjust national policy prescriptions to state conditions. Rural decentralization in general is essentially a state affair.

The 73rd and 74th amendments to the Constitution in 1992 decisively forced the pace towards empowering local governments by instructing states to decentralize to lower levels. Under the amendments, deconcentration is expected to be complemented by devolution of full governance to local institutions. The Amendments provided for greater accountability at the local level and promoted the use of independent audit of government operations.

The amendments officially gave legal standing to a third tier of government. Third tier governments are known collectively as Panchayat Raj Institutions, or PRI, and they operate at district, block and village levels. The district is the main subdivision within the state. A block is a large subdivision of the district, and may include many villages. The democratically elected village council (gram panchayat) is the basic local unit. Gram panchayat chairs are elected by the village council. In this fashion, the Amendment legally created a structure of government that combined parliamentary representative democracy with direct democracy.

The Amendment legally created PRI, comprising some 220,000 rural and urban local governments, forced local elections involving 3 million politicians and established various accountability mechanisms. The amendments stipulated that all panchayat members be elected for five-year terms. Financial resources started to flow from the center to local level governments to finance diverse activities promoting decentralization, mainly for employment generation and infrastructure works.

The 73rd Constitutional Amendment Act also created the Gram Sabha, the village assembly, a body consisting of all voters in a village (or a group of villages) within the area of a panchayat at the village (or a group of villages) level. The constitution of Gram Sabha for every Gram Panchayat provides the legal opportunity for a political forum to people in every locality to meet and discuss the local development problems, and consequently understand the felt needs and aspirations of the community. It is an institution to meet, discuss the administrative actions of the elected representatives. In theory, the Gram Sabha has extensive powers over the ownership of minor forest resources.

9.3 Forest Governance

9.3.1 Forest Policies.

During the colonial period, the management of natural resources was under the control of the central government. This notwithstanding, rural community access for subsistence purposes was allowed, and even at this early stage there were some cases of decentralized co-government involving local communities. For example, the Forest Council Rules of 1931, half a century before decentralization became a popular concept in India, encouraged the creation of some 1,000 village councils to manage one-quarter of the Kumaon forests resulting in the official recognition of village communities and a closer linkage with government. The Forest Councils gained authority from the colonial governments and in turn, they were required to regulate activities

of their members (Agrawal 2002). Also, the Indian Forest Act of 1927, which is still the basic piece of legislation of the forest sector, established the classification of village forests, to be managed by communities (section 28). These communities could retain revenues from forest management. Possession rested with the community. The state held ownership and issued forest management rules. This was not a true decentralized system of management of forests in the sense that rights were bestowed on communities more as a privilege than as a right. Nevertheless, in these cases the central government relinquished some of its authority in favor of communities.

With the Government of India Act of 1935 the ownership of forests was transferred to State governments. After independence the role of the central government increased considerably.

The Forestry Policy Act of 1952 eliminated the autonomy of local communities established during the colonial period. Further, in 1972, by virtue of the 42nd Constitutional Amendment, and further emphasizing centralized management, forests were placed in the "concurrent list" empowering the central government to have decisive decision-making authority over management of the nation's forests. In part, this was due to the perceived lack of interest of states in sustainable forest management and forest conservation as well as to the evidence of rapid deforestation and degradation of forest resources taking place at that time. The administration of forest resources became the shared responsibility of both the central and state governments. The operational duties, however, remained with the states.

The Forest Conservation Act of 1980 reinforced this increased centralized control by making it mandatory to obtain permission from the central government for converting forest land to non-forest uses. The Act was amended in 1986 to expand its coverage to plantations and clearing of vegetation on forest lands. The trend towards centralization severely limited the ability of state governments to make discretionary decisions about forests (Singh 1996).

However, the National Forest Policy of 1988 signaled a dramatic change in government orientation, priorities and approaches to the administration of national forest resources. It moved government priorities from managing forests for industrial and commercial production to an emphasis on environmental quality and on meeting the basic needs of the people, particularly the poor, living in or near the forests. It recognized the linkage between poverty and environmental deterioration and the concept that effective forest management

could not take place without the involvement and participation of local communities. For the first time, the needs and rights of local people were established as essential ingredients of forest governance. The central government instructed all states to involve local communities in the regeneration of degraded forests.

To translate the 1988 National Forest Policy into action, the central government issued a circular in 1990 to all states and Union Territories with the guidelines for "Involvement of Village Communities and Voluntary Agencies in the Regeneration of Degraded Forests", providing an operational impetus for Joint Forest Management (JFM). These schemes are legal agreements between village communities and the local government to manage forests according to a joint plan in which responsibilities of partners are specified. The village community is represented by an institution specifically created for this purpose and that in different places has different names but it is most commonly referred to as the Forest Protection Committee (FPC). All village households have the opportunity to become members of the committee, although in practice this rarely happens. The rules governing these committees and their responsibilities vary from state to state. Communities are entitled to receive part of the benefits created by the partnership and are responsible for the management and conservation of forests (Chandrasekharan 2003). According to the JFM scheme, funds should be managed jointly and in a transparent manner.

In some states panchayats also enter into JFM agreements with the state Forest Department or providing support to the FPC and helping in conflict resolution. Some observers indicate that there are risks in getting panchayats involved in JFM since the inclusion of a third party has the potential for upsetting and dislocating the existing relationship between the state Forest Department and the FPC (Chandrasekharan 2003).

JFM schemes emphasize the creation of an enabling environment for the empowering and capacity building of local communities and local government officials (IIFM 2003). In a sense, these systems of local governance were preceded by the experience of the informal Village Committees in West Bengal, which were already involved in managing forests long before the National Forest Policy of 1988 and the Constitutional Amendments 73 and 74. The Government of West Bengal had formalized these approaches in 1989 (Agrawal 2002). JFM created a legal space for local participation in the management of forests and for the promotion of women's' and tribal roles in designing forest actions and sharing the

benefits. JFM is now envisaged by the government as the main mechanisms for the rehabilitation of degraded areas.

A common and important limitation of JFM schemes was that they focused exclusively on degraded areas. However, in 2002, the federal government issued instructions to allow JFM in quality forests as well.

The decentralization of forest management through JFM has taken place in a large scale in many states of India. Today JFM covers more than 14 million ha of forest lands in 27 states and involves some 64,000 FPC and more than 2.8 million families, with about 25 percent of them belonging to indigenous or disadvantaged communities (Chandrasekharan 2003). JFM expanded rapidly in cases such as Andhra Pradesh and Madhya Pradesh where state governments were more inclined to lend support to decentralization (Venkataraman and Falconer 1998).

Another case of partnership between the government and local communities, involves the marketing of non-timber forest products. Forest Departments, based on the rationale that middlemen were exploiting producing communities, established marketing bodies and agreements with communities to eliminate the middleman. While in theory this partnership could have helped communities to obtain a larger share of profits, in practice it has not worked well. Local marketing bodies and officials, using their monopolistic power have been able to appropriate benefits with little or no change for communities. Corruption is widely suspected as well. In some cases the "nationalization" of non-timber forest products marketing led to sharp declines in production (Shen and Contreras-Hermosilla 1996).

9.3.2 Forest Institutions

According to the Constitution, both the central and state governments may legislate on forestry related issues. However, state policies and legislation are subordinate to, and must be compatible with central policies.

In 1985 the Union Ministry of Environment and Forest (MoEF) was created. The MoEF is responsible for policy formulation, planning, coordination of all forest development programs. It also controls research, education and training activities. The forest functions of the MoEF are carried out by the Department of Forests and Wildlife.

The State Forest Departments (SFD) are mainly concerned with the implementation of forest policies in individual states. The efficiency of SFD is rather low as they have shown a tendency to assume responsibilities for which are not well prepared or have no comparative advantage. Thus, they are involved in industrial forest plantations, forest products

processing and marketing activities. These enterprise activities also tend to enter into conflict with the law enforcement responsibilities of the SFDs as they require fundamentally different capacities (Chandrasekharan 2003).

The SFD have also proven to be rather inflexible to change. The existing organizational structures have remained essentially unchanged, based on traditional management with accountability focusing not so much on results but on adherence to budgetary objectives and allocations. As stated by an analyst: "Some FDCs have taken up a wide array of (diverse and dissimilar) activities to improve their return on investment, including control over marketing of non-wood forest products. Some states have also established processing industries, government-owned corporate bodies for development of pulpwood, NWFPs, and wood processing industries. With very few exceptions these public sector entrepreneurial efforts have been failures, resulting in great loss of funds and other resources" (Chandrasekharan 2003).

The courts also have an important role in the management of the forest sector in India and in some cases they have established rules that greatly limit the states room for action and access of some populations to forest resources.

Partnerships with the private sector are practically non-existent. State policies towards private sector enterprises are quite restrictive and this has resulted in private concerns relying on small holders in "non-forest" areas for productive activities involving a variety of different partnership arrangements. In some states most of the forest production no comes from small holders and homesteads.

9.4 Concluding Comments

The Indian decentralization process has been uneven with important variations as states apply different rules. In fact this is to be expected as the Constitution aims at obtaining a minimum degree of uniformity only, to allow for adaptation to local conditions. Also, states have different endowments of resources and priorities that could call for different schemes of state and third tier governance.

However, many states have been reluctant to surrender their powers to lower layers of government. Often local governments are treated as agents of the state government rather than as self-governing bodies. While the Indian Constitution defines PRI as institutions of self government, there has been minimum administrative and fiscal decentralization. The PRI are not yet a third tier of government but rather an extension of state government to the local level. This is facilitated by the fact that local governments still have a limited capacity

to handle the acquired responsibilities (World Bank 2000c; World Bank 2003c).

To some measure this is facilitated by the often unclear division of responsibilities and authority between the different layers of local government and the state. When this happens the control of various decisions naturally reverts to the states. A number of state governments have kept the authority to withdraw some of the functional responsibilities of local government. Often decentralization programs are being used as a vehicle to consolidate state powers.

Local governments do not have autonomy to set the level of local taxes and have no borrowing power and therefore continue to depend on the state government for financing. In addition, there is no political contestation involving the most valuable forest resources. When it comes to benefit sharing there have been various cases in which the state forest department retains a disproportionate share of the financial benefits.

As noted, JFM has focused on degraded lands and forest resources that since colonial times had been allocated to communities for their subsistence. Even more, since there is no operational definition of degraded forests, these are normally identified at the discretion of local government officials. In some cases, the identification of degraded forests is extremely restricted thus limiting the options for JFM. Local populations are attracted to JFM schemes because they provide a source of wage employment (Baumann and Farrington 2003). Also, JFM provide a mechanism for local populations to keep outsiders from gaining control over the forests local communities use. Further, the Forest Department often provides other incentives for participating in JFM schemes, such as wells, check dams and road improvements (Belcher 2004)

There is a danger of government capture. The Indian society is highly stratified and there is always the danger that decentralized governments will be captured by the local elites. Despite the emphasis of the legal framework on favoring disadvantaged groups, this has been hard to translate into reality. There are not only pervasive caste and gender biases, but disadvantaged groups also lack the capacity to have fast and accurate access to information about their rights and powers. Local institutions remain dominated by the elite. Further there is a concern that JFM frequently works against those that formerly depended on forests but that have no recognized rights. Generally, rights are assigned based on proximity and therefore geographically distant groups may see their access to the forest curtailed (Belcher 2004).

The Indian case also shows that there are probable substantial gains from involving the private sector in the management of forest resources. Governments, either central or state, should concentrate their efforts on those responsibilities that nobody else in society can do. Government institutions have no comparative advantage, but do have many disadvantages, in organizing and operation market oriented entrepreneurial activities. These can be best accomplished by the private sector at a potentially much lower cost to society.

Despite all of the above, the structure of federal, decentralized governance has clearly improved. Through decentralization, panchayats are generally empowered with a number of functions, including the preparation of plans for the management of natural resources. The decentralization process has created legal space to involve representation of people from different strata, including disadvantaged groups such as tribal groups and women.

10. NEPAL

Nepal is a small country (147,181 square kilometers) with a population of some 23 million. Significantly, about 86 percent of the population lives in rural areas; and a large part of the rural population depends on trees and forests for fuel, food and livelihood. Nepal is a Constitutional monarchy with an elected parliamentary system. As of 1998, the country was divided into 5 development regions, 14 zones, and 75 districts with district development committees (DDCs) which are further divided into more than 3,900 village development committees (VDCs) which were the old panchayats (Shrestha 1998). Since 1997 there has been a Maoist insurgency movement within districts in the central and western regions of the country.

10.1 Forests and Forest Production

Nepal has 5.8 million ha of forest land, which is about 40 percent of the total land area of the country. In addition, there are more than 15,000 ha of plantations. Although there has been important progress in protecting and replanting forests in some regions-particularly the middle hills where a substantial portion of the forest is managed by communities, deforestation is a continuing problem at the national level.

There are two quite distinct forest situations and sets of issues. One relates to the lowlands, or Terai forests, which contain high value outputs. The other relates to the hill forests, where the population pressures and

deforestation issues are most critical. With regard to forest production, both timber and non timber forest products are important sources of livelihoods and income, with an important segment of hill agriculture production dependent on incorporating forest litter as organic material for soil building and renewal.

10.2 Forest Institutions

The Ministry of Forests and Soil Conservation (MFSC) and the four departments under it are the major government forestry institutions. MFSC is responsible for policy formulation in the forestry sector. It does that in close collaboration with National Planning Commission for the master plan and forest programs and the Ministry of Finance for budget (Department of Forests 1997). It is also responsible for drafting forest legislation in close rapport with the Ministry of Law and Justice. The four departments under MFSC are:

- Department of Forest
- Department of Soil Conservation
- Department of National Parks and Wildlife Conservation
- Department of Plant Resources.

The ministry is also responsible in supervising the operations of the following parastatals and development boards:

- Nepal Rosin and Turpentine Industry
- Herb Production and Processing Company
- Forest Products Development Board
- Forest Research and Survey Centre Development Board.

The Timber Corporation of Nepal (TCN) under the Ministry of Supplies is involved in the marketing of logs collected from the government forests.

The Forest User Groups (FUGs) also comprise a prominent institution in the use and management of the forest resource. (The 1993 Nepal Forest Act gives legal authority to forest user groups (FUGs) to assume management of forest areas in the hills of Nepal. Land ownership remains vested with government but the management control rests solely with the FUGs, which legally own the trees, develop their own management plans, set prices for forest outputs and determine how surplus income is spent).

Trade of forest products is carried out both by the government sector agencies as well as the private sector. Altogether four parastatals, namely the Forest Production Development Board (FPDB), Timber Corporation of Nepal (TCN), Herb Production and Processing Company

Ltd (HPPCL) and the Nepal Rosin and Turpentine Company Ltd (NEROT) under the Ministry of Forest and Soil Conservation (MFSC), are involved directly in the trade of different forest products. The first two have mandates to sell the timber (both round- and sawntimber) and fuelwood obtained either directly from the DFOs or from the plots provided by the DFOs for harvesting and logging. The HPPCL is involved in production, processing and the sale of different medicinal herbs. The NEROT is responsible for the collection of resin and the processing and marketing of rosin and turpentine. (Shrestha and Nepal 2003).

10.3 Forest Legislation and Governance: The Move toward Decentralization of Forest Management and Community Forestry

In any discussion of decentralization of forest governance and management, Nepal features prominently, since it went from a fairly centralized structure to a highly centralized management and control structure and then back to a decentralized structure when it was recognized that the centralized control was not working. Thus, in 1957 all private and communal forest land was nationalized and put under the new created Forest Department. The Forest Law of 1961 introduced permit and fee systems, and these were required for all forest products taken from the newly nationalized forests. While the nationalized forests in the lowlands provided good income for the government, it was found that the hill forests provided relatively little revenue for the government. Further, it became increasingly evident that the Forest Department was failing to control deforestation. In fact, in many areas it was worse.

In the 1970s there was limited experimentation with participatory forestry, and the results of this experience, plus other analyses of the worsening situation, led in 1978 to a revision of the 1961 Forest Act. A set of forest rules were formulated in 1978 that included the "Panchayal Forest (PF) and Panchayal Protected Forest (PPF) Rules." Up until 1990, the political units at the village level were panchayats.

Denuded national forest handed over to a village panchayat for reforestation was known as a PF. All the benefits of a PF would accrue to a village panchayat. If the forest land handed over for protection had trees/forest on it, then it was known as PPF. The benefits from forest products sales were to be given to the national government; but up to 75 percent of the revenue could be given back to the panchayat for its role in managing and protecting the forest.

Note that this was the start of the evolution to the present community forestry program of Nepal. In 1978, the concept was to transfer part of the national forest estate to local administrative and political units, but not to the traditional users of the forest. People's participation was considered essential, but the best means to generate such participation had still not been articulated in the policy. The concepts became much clearer in the Master Plan for the Forestry Sector (MPFS) that was prepared between 1986 and 1988 and approved in 1989. It recommended intensification of community forestry on a grand scale. It provides a 25-year policy and planning framework for the forestry sector. The long-term objectives of the MPFS are to:

- Meet the people's needs for forest products on a sustained basis;
- Conserve ecosystem and genetic resources;
- Protect land against degradation and other effects of ecological imbalance; and
- Contribute to local and national economic growth.

The MPFS guides forestry development within the comprehensive framework of six primary programs. They are:

1. Community and private forestry development;
2. National and leasehold forestry development;
3. Wood-based industries development;
4. Development of medicinal and aromatic plants;
5. Soil conservation and watershed management; and
6. Conservation of ecosystem and genetic resources.

The MPFS is an integrated and program-oriented approach for developing the forestry sector. The adoption of the approach was a turning point in the history of Nepal's policy for the forestry sector. It provides the framework for the more operational five year plans prepared by the National Planning Commission. (The most recent is the tenth five-year plan that was put into operation in 2002).

In 1993 a new Forest Act was passed that repealed the earlier, 1961 Act. The 1993 Act was a key piece of legislation, with a new focus on Forest User Groups (FUGs) as the main management units. This new community forestry focus emphasized two major components:

- (1) management of natural forests and enrichment planting of degraded forests as community forests (previously the PPFs); and

- (2) establishment and management of community plantations (previously the PFs);

A formal process was set in place to organize FUGs and hand over control of national forest areas. It should be noted that actual ownership of the forest land is not handed over to the user groups and that there is a process in place for the DFO to take back forest land if certain specified requirements are not met. Finally, it should be noted that the broader Decentralization Act of 1992 further strengthened the role of user groups as local-level development organizations (Shrestha 1998).

According to the MPFS and the associated forest legislation, the main features concerning community forestry are that (Joshi 1997):

- 1.) All accessible forests can be handed over to users (no area limit);
- 2.) The Forest User Groups (FUGs) have to manage the forests as per the approved constitution and operational plan of landed over community forest;
- 3.) Any national forests suitable to be converted into community forest will not be given to other, such as leasehold forests;
- 4.) District Forest Officer (DFO) can hand over forest to FUG. (It used to be the responsibility of the Regional Director, the higher authority);
- 5.) FUGs can use surplus funds in any kind of community development works;
- 6.) The FUG is an autonomous and corporate body with perpetual succession;
- 7.) The FUG can fix the price of the forestry products irrespective of the government's royalty;
- 8.) The FUG can plant long term cash crops (e.g. medicinal herbs) without disturbing the main forestry crops;
- 9.) The DFO can take the forest back from FUG if they operate against the operational plan (agreement). But the DFO must return it as soon as possible once the problem is solved.
- 10.) FUG can transport any forest products simply by informing the DFO;
- 11.) FUG will not be disturbed by political boundary while handing over the forests;
- 12.) The FUG can establish forest-based industries;
- 13.) FUG can amend the operational plan simply by informing the DFO;
- 14.) FUG can punish misusers (encroaches and thieves), who violate the rules of the plan; and
- 15.) Any agency can help users to manage the community forest.

The government is still involved in forest administration and governance locally. Thus, the District Forest Office is the institutional "gate-keeper" that formalizes the incorporation of users into a FUG through registration and allows users to extract certain quantities of forest products as indicated in the approved operational plan. Thus, coordination and cooperation between users (FGUs) and a DFO is critical to the success of community forestry in Nepal (Kanel 1998). The government has established a Forestry Sector Coordination Committee to help smooth linkages between government and the FUGs. In addition, the FUGs have established various federations of FUGs to help guide the implementation of the community forest policy and establish solid relationships with government agencies. The key one is a network called "Federation of Community Forest Users of Nepal" (FECOFUN). The group operates in more than 75 districts in Nepal. Decisions still are highly influenced by political and non-forestry bureaucratic pressures, but groups such as this help to provide pressure in the interest of the FUGs (Joshi et al., n.d.).

The current situation with regard to FUGs is laid out by Springate-Baginski et al. (2003): "The forestland identified by the DFO for community forestry was 61 percent of the total forests (an estimated 3,551,849 ha). Formation has proceeded at the rate of about 1,000 FUGs per year. By 2003 there were 12,079 formed across Nepal, managing over 15 percent of Nepal's total forestland area, and over 28 percent of the land allocated to be handed to communities (Table 3). Given the resource constraints and ongoing reorientation within the DFO, the progress is remarkable. Nevertheless there is some distance still to go: for instance over two thirds of the forestland originally allocated for community forestry is yet to be handed over."

A more recent institutional innovation, and a variation on the FUG model, is leasehold forestry, where targeted groups of poor rural people (as distinct from whole communities, as in the case of the official FUGs) are given a 40-year lease on a small area of forest. There currently are some 1,800 household groups participating with rights over plots of degraded forest totaling some 7,400 ha (IFAD 2004).

10.4 Biodiversity Protection: A Main Goal in Nepal

Protected areas have been established in Nepal and have a different institutional base than does forests and forestry within the Community Forestry framework. The National Park and Wildlife Conservation Act provides for five categories of protected areas to help achieve the conservation of ecosystems and genetic resources. These are:

- National Park: an area set aside for conservation, management and utilization of flora and fauna together with the natural environment.
- Strict Nature Reserve: an area of ecological significance set aside for scientific study.
- Wildlife Reserve: an area set aside for the conservation of animal and bird resources and their habitats.
- Hunting Reserve: an area set aside for the management of animal and bird resources for hunting purpose.
- Conservation Area: an area managed for the sustainable development of human and natural resources.

In addition to protected areas under the National Park and Wildlife Conservation Act, the government may designate any land in public or private ownership as "protected watershed" based on the Soil and Watershed Conservation Act.

In the short history of protected areas in Nepal, diverse natural areas have been selected to protect notable biological communities representing the flora, fauna and culture of the country. To date there are eight National Parks, four Wildlife Reserves, one Hunting Reserve and two Conservation Areas totalling 2,105,100 ha (Department of Forests 1997). Currently, protected areas cover some 18 percent of the country's land area (Shrestha and Nepal 2003). A lingering problem is the lack of support for those communities in and around major national parks and protected areas that cannot be used by local communities.

10.5 Concluding Comments: Issues and Challenges

Devolution and decentralization of forest governance and management in Nepal appears to be achieving the desired results in terms of slowing deforestation and forest degradation and getting denuded areas replanted (cf. Khanal 2003). It also appears to be helping the rural populations who now benefit from their own management activities. Yet, there still are fears among the population from the days of nationalization. Many naturally fear that after they invest their time and effort in forest restoration there will be another act of nationalization. Thus, a major challenge for the government is to work with the local groups to build confidence and stability. The central government has attempted in several ways to ease the process of establishing productive FUGs. Among other things, the authority to hand over forests to user groups has evolved from regional directors down to district forest offices, which helps to shorten the process. At the same time, Khanal (2003) points out that there have been increased attempts by the

Ministry and Department of Forests to tighten control on the FUGs and to divert revenues from the local users to the government, e.g., in the form of royalties on timber harvests. Ultimately, in a government such as found in Nepal, the central authorities have the control and thus need to exercise restraint in building bridges with local populations and a balance in exercising power that leads to building trust and cooperation in local communities.

A recent policy review for Nepal's forestry sector has identified some main constraints on policy implementation (Shrestha and Nepal 2003). Some of the key ones are as follows:

- Political instability and lack of commitment by the political leadership;
- Underestimation of the forestry sector contribution forestry to the national economy;
- Insufficient linkage between the forestry sector and other sectors; interdependencies are not understood properly;
- Lack of financial and human resources;
- Weak governance and M&E system; and
- Threats from terrorism and insurgency.

Springate-Baginski et al. (2003) suggest that the key constraint to further implementation of community forestry in Nepal is the inadequate capacity of DFO to meet the new challenge of converting from a policing and protection agency to one that facilitates and promotes the decentralized community forestry program that has shown so much promise. Community forestry is under threat from a number of government policies:

- Management plan requirements place costs for expensive inventories that are not applied on state forest lands,
- a large area of informally managed community forests continues to remain outside the CFM model as these forests do not have approved management plans, and
- politicians and insurgents continue to see community forests as a source of new taxes or rents rather than understanding the importance of forest investment to alleviate poverty and improve livelihoods.

A serious debate is underway. Recent policy changes have been announced to deregulate the sale of non-timber forest products, change or eliminate the role of parastatal and development boards for resin and herb processing, and to foment investment in forest-based enterprises. (Himalayan Times, February 27, 2004, "Forestry: Government Preparing Policy on Herbs"). Nepal is working on these constraints and has a lot of support from outside

agencies-both NGOs and governments - in bringing to bear the experience of other countries and the resources available for advancing the community forestry approach that has been taken in Nepal (Khanal 2003). With the significant outside support flowing in, Nepal faces the additional challenge of making the community forestry movement self sustaining over time.

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11. BOLIVIA

11.1 Background and Forest Ownership

Bolivia's geographical area is nearly 110 million hectares (ha) with some 70 million ha located in the lowlands (areas under 500 meters over sea level). The country's forest resources cover about 53 million ha, mostly situated in the lowlands north and north east of the Andes. Bolivian forests range from evergreen forests in the north to dry deciduous forest in the south with the latter having a greater potential wood production.

The nation's forest resources sustain a relatively small forest industry. Figures are imprecise but official records show that only about 560,000 cubic meters are extracted annually for industrial purposes but as much as an equal amount may be harvested illegally. Still this represents a small proportion of the estimated 20 million cubic meters that could be exploited annually in sustainable manner. About 60 percent of the timber flows to the national market while the rest is exported.

Until the mid 1990s all forest resources were legally owned by the state, and their exploitation and management took place under the form of utilization concessions granted by the government to actors of the private sector. Timber extraction was concentrated with a few concessionaires having rights to almost 21 million ha. Only a few, most valuable, species were exploited.

Following policy reforms in 1996, the balance of power and control over land and forest resources changed drastically. Concessionaires progressively reduced their concession areas to some 5.3 million ha. The government recognized indigenous community ownership of 22 million hectares in the lowlands, and distributed 23 million ha to medium- and large-sized farms and 3 million to small-scale farmers. Municipalities have asked for administration of some 2.2 million ha formerly controlled by the central government. The central government also declared some 15 million ha as protected areas. However, land ownership rights are in fact uncertain. For example of the 22 million ha allocated to indigenous communities, only 3 million have been titled. Most forest areas have yet to have clear boundaries, be demarcated and titled. Frequently there are overlapping claims yet to be resolved. Because of this, there is doubt about the total area of forest that remains in

the government hands and the area that is de facto controlled by communities, colonists and other actors of the private sector.

11.2 Structure of Government

Before 1994, Bolivia was an extremely centralized country with nine regions with local governments that had very little power or responsibility. The Bolivian decentralization effort started in 1994 when the Congress approved the Law of Popular Participation.

The Popular Participation Law, and the complementary Administrative Decentralization Law

that followed a year after, radically shifted the structure of power and control of resources away from the central government and towards Departmental (Regions) and Municipal levels. The Administrative Decentralization Law was rather limited in scope and was aimed at deconcentrating some administrative procedures. The Popular Participation Law had a far more important impact.

According to the Popular Participation Law, four pillars supported the new structure of government:

- Resource allocation. 20 percent of all tax revenues were allocated to municipalities, or about double the proportion prior to the passage of the new law. The formula for financial transfers to municipal governments was based on population number, rather than on previous political considerations. Municipal governments also acquired control over some local taxes (real estate, vehicles).
- Reform of municipal government responsibilities. Responsibility for some sectors including education, health, culture, irrigation, roads and culture were also allocated to municipalities.
- Participatory approach. Local populations and grass roots groups acquired the right to participate in Comités de Vigilancia (Oversight Committees), which could propose projects and supervise expenditures of public funds. These Committees also acquired the authority to suspend disbursement of Popular Participation funds if these were being misused.
- Creation of new municipalities and expansion of territorial coverage and responsibilities. Almost 200 new municipalities of a total of 311 were created by the law. The Law also expanded their jurisdiction beyond urban areas to the surrounding rural areas (before the Law there were urban municipalities only and as a result rural areas received little or no attention from government)

The Bolivian decentralization effort was heavily biased towards giving greater powers, authority and responsibility to municipalities, rather than to the departments. To great extent this was due to a policy of poverty alleviation targeted action as well as democratization in rural areas. Municipalities were judged to be closer to the people and achieve these objectives more effectively than distant central or departmental governments.

Following decentralization the distribution of financial resources and public investment changed drastically in favor of municipal governments. Distribution of public investment across municipalities also grew a great deal more equitable with the poorer municipalities receiving a greater share. Local governments became more responsive to local needs. Perhaps because of the possible greater responsiveness to local needs, among other factors (local power structures and strength of local institutions seem to have been contributing factors), public investment also shifted from large production and transportation infrastructure expenditures to social services and human resources.

The Popular Participation Law increased the role of local civil society in running the municipal governments, formally recognizing local grass root organizations-farmers, local committees, indigenous groups-as Community and Land-Based Organizations, (Organizaciones Territoriales de Base, OTB). The law entrusted them with a degree of control over local government budgets by ensuring their participation in planning medium term Municipal Development Plans. In 1994, an amendment to the Constitution gave indigenous communities the exclusive right to their lands and territories (Tierras Comunitarias de Origen, or TCOs). Thus, the decentralization effort reached the lowest possible level of government and transferred various responsibilities and authority to organizations of the civil society and grass roots groups (Contreras-Hermosilla and Vargas Rios 2002).

11.3 Forest Governance

Building on the decentralization framework established by the Popular Participation Law, the government drastically reorganized the management of the forest sector in 1996. The Forest Law 1700 was approved in July of that year. The Forest Law included a complex set of prescriptions for ensuring sustainable forest management, the administration of forest concessions, promoting reforestation, combating forest crime and corruption, and institutional restructuring. However, one of its most prominent features was the creation of a much more decentralized legal and institutional framework of forest administration and management.

The new legal system puts a great emphasis on decentralization with a number of responsibilities and financing transferred to the departmental governments. These are now responsible for implementing forestry development plans at the departmental level, and especially municipalities or unions of municipalities (mancomunidades), which became responsible for implementing local management plans and for carrying out monitoring and control activities within their jurisdiction. Under the forestry law departmental governments receive 35 percent of the timber concession fees and 25 percent of forest conversion (authorizations to deforest) fees to finance these implementation of these responsibilities. Municipal governments receive 25 percent of the government receipts for concession and forest conversion fees.

Legislation recognized the establishment of Local Community Associations (Asociaciones Sociales del Lugar, ASL) which furthered decentralized management by entrusting local populations with the management of some municipal forest lands. ASLs are groups of traditional forest users, peasant communities and indigenous populations that depend on forests within the jurisdiction of the municipality (Cordero and Andaluz 1998). According to Law 1700, municipalities must assign use of 20 percent of municipal forests-the Municipal Forest Reserves -as forest concessions to these groups. The ASLs are oriented towards the commercial use of forests. The ASL scheme legitimizes collective entities made up of actors who previously were stigmatized and regarded as illegal operators extracting wood from public forests. Thus local groups functioning as ASLs could now legally access public forests through a preferential concession system. ASLs have preferential treatment as they can access concessions without going through the public auction process reserved for other timber utilization contracts.

To comply with their newly acquired forest-related responsibilities, municipalities or unions of municipalities are required to create Municipal Forestry Units (Unidades Forestales Municipales, UFM). These are responsible for identifying areas that will constitute the Municipal Forest Reserves and for fulfilling several other functions such as helping local communities produce management plans, monitoring and controlling compliance with these plans, halting activities that are contrary to the sustainability of forest resources, and promoting forest plantations and agroforestry (Kaimowitz et al. Winter 1998/1999). These responsibilities are expected to be financed with the 25 percent of forest fees municipalities receive (Pacheco 2002).

As mentioned, the government recognized the exclusive right of indigenous communities to utilize their traditional, community lands, or TCOs (Tierras Comunitarias de Origen), as long as they protect the integrity of their territories. While commercial uses of forests must comply with forest management plans, traditional and non-commercial uses of forests do not require authorization from government (Lobo and Duchén 1999).

The government also accepted voluntary certification as proof of compliance with regulations requiring sustainable forest management plans. Many entrepreneurs and concessionaires opted for certifying their forest operations rather than dealing with the government bureaucracy. This led to a rapid expansion of the area under certified forest management, which now exceeds 1 million ha.

11.4 Concluding Comments

The Bolivian decentralization process was intense and fundamentally reshaped the administration of forest resources. The Bolivian forest sector policy reform experience is one of the few major exercises in developing countries to rationalize the management of the country's forest resources in consonance with wider decentralizing changes in the whole system of government and achievements are, by most accounts, important. More than 7 million ha of forests are under sustainable forest management plans and now the country is a world leader in tropical forest certification with more than 1 million ha of forest resources certified. Much of this is due to decentralization of public functions to independent private certifying agencies.

Progress in reforming public forestry organizations is remarkable, with the replacement of a corrupt and inefficient central public forest administration by one that is more professional, focused and transparent. There are significant advances in decentralization to rural communities of some of the responsibilities and decisions for forest resources management. In many cases, the decentralization process has redefined local power relationships with groups that were previously marginalized not playing a greater role in the management of forest resources. Indigenous groups now have the legal opportunity to acquire control of traditional forest lands (Pacheco 2002). However, some problems have arisen during this process that produce insights on critical factors influencing the forest decentralization effort:

1. Partly to the rather revolutionary nature of the reforms government staff in charge of implementation still have a limited understanding of the spirit and letter of the new policy and legal system. This problem,

however serious during the early stages of implementation, has considerably subsided. In addition, there was a lag in properly understanding decentralizing reforms on the part of grassroots groups and the private sector. Local groups organized in ASLs did not have the capacity and experience to manage a commercial enterprise (Kraljevic 2002). An early dissemination and training effort would have contributed to reducing this problem.

2. The government and the forestry administration institutions both at the central and sub-national level have been unable in many instances to fully enforce the law, simply because of institutional weaknesses. The decentralization process to administer forest resources depends on both a strong central forest administration and capable local institutions and in many cases this has not happened.
3. Further, proper implementation of new legislation by local governments requires supportive action by various agencies, for example, to sort out land claims and legalize forest land ownership. This coordination and interaction has been less than adequate. Land titling procedures, a responsibility of the central government, are lengthy and complex. The same has happened in the delimitation of Municipal Forest Reserves.
4. Although the situation varies among municipalities, linkages between the central Forest Administration and the sub-national levels of government are frequently not adequate. Departmental governments have been practically absent in the administration of forest resources. (Pacheco 2002). Since progress towards decentralization in the forest sector depends on action by several agencies of government, greater effectiveness could be achieved if the critical inter-sectoral linkages were analyzed from the start. It is particularly essential to harmonize legislation of related sectors that affect the process in the forest sector.
5. With the exception of management of the Municipal Forest Reserves, municipalities have little discretionary power, with major decisions still being made by the central government. National rules dictated by the center sometimes create insurmountable barriers to implementation at the local level (Pacheco 2002). Further decentralization of responsibility and authority is required for local governments to reflect local conditions.

6. The Bolivian experience also illustrates the importance of a proper analysis of the financial impacts of forest sector decentralization on various actors, public or private and the effect that this may have on the management of forest resources. Economic incentives need to be structured in such a way that the incentives affecting the principal actors will be sufficient to ensure their actions coincide with national priorities. For example:

- Forest concessionaires and industrialists, key actors who would provide the economic drive for the sustainability of reforms, do not appear to have had enough economic incentive to gear their actions to coincide with policy priorities.
- Municipalities treat forest income as discretionary funds that can be used to finance activities other than forest-related ones as prescribed by law.
- Public administration of the forestry sector depends almost exclusively on income from concession fees. This puts at risk the sustainability of government action in the sector. Receipts from concessionaires are below the amounts projected, either because concessionaires are unable to pay these fees or because they choose not to pay them for lack of effective government enforcement.
- While municipalities are expected to contribute to the formation of ASLs, the costs of doing so frequently exceed revenues associated with this task making local governments less interested in implementing this scheme. Due to the reduction of forest fees receipts, the government was forced to reduce by half the transfers to municipalities in 2002. And ASLs themselves are unlikely to get established unless they have financial support and then unlikely to succeed unless they can operate at financial profits.

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Note regarding terminology for the various levels of government:
 Federal & National = Central;
 State, Province, Subject, & Territory = Sub-national;
 Municipal, Sub-state, Municipios, & Panchayats = Local

TABLE 1 - Roles of Forest Agencies in Federal Systems: Overview of Current Practice in Eight Major Forest Countries

	Australia	Brazil	Canada	India	Malaysia	Nigeria	Russia	USA
Public forest ownership	<ul style="list-style-type: none"> • ~25% private • ~75% subnational levels of government <p>State governments (but not territorial governments) legislate forest practices and grant licenses for forest management on public land</p>	<ul style="list-style-type: none"> • Natural forests are owned by government <p>The Environment and Natural Resources Institute, IBAMA, has main responsibility for the management of forest resources</p>	<ul style="list-style-type: none"> • 23% federal • 71% provincial • 6% private • Provincial governments legislate forest practices on provincially owned land and grant licenses for forest management; • The Federal and provincial governments manage and regulate federal and provincial parks respectively 	<ul style="list-style-type: none"> • 90% federal • 10% communities and private forest administration is jointly managed by the federal and state governments but the states have the primary responsibility for implementation • States are expected to decentralize to third tier levels of government 	<ul style="list-style-type: none"> • Forest ownership rests with the states. Only in a very few cases forests belong to customary communities 	<ul style="list-style-type: none"> • All "forest reserves" (less than 10% of the country's territory) are under the co-management of states and local governments, who award timber concessions • Constitutionally, the states have the greatest control over forest resources, but in reality the federal government exerts more power as it controls the money • Forested lands outside of Forest Reserves are not put under any form of systematic management 	<ul style="list-style-type: none"> • 92% of forests are federally owned. Other forests may remain under ownership of the subjects of the Federation or other public authorities • The Federal Government can share ownership with the subjects 	<ul style="list-style-type: none"> • 35% federal • 5% states • 60% private • The federal and state governments develop legislation for their lands respectively

	Australia	Brazil	Canada	India	Malaysia	Nigeria	Russia	USA
Federal Forest Agency and Federal Responsibilities	<p>Department of Agriculture, Fisheries and Forestry</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • Environmental protection; • management of the federal forest estate; • control of international trade in forest products; • land use in the territories; • general directives for forest resources management for all states (overall sectoral strategies) 	<p>IBAMA, linked to the Ministry of Environment.</p> <p>IBAMA has regional offices</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • centralizing national environmental issues; • administers forests country-wide <p>SEMAM, Environment Secretary of the Presidency</p> <ul style="list-style-type: none"> • Responsibility for National Policy formulation and control 	<p>Natural Resources Canada's Canadian Forest Service</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • international trade and relations; • management of federal land; • national reporting; • Aboriginal affairs; • national consensus building <p>Responsibilities for environmental regulation as well as science & technology are shared between the federal and provincial governments</p>	<p>The Central Ministry of Environment and Forests issues national policy directives and has responsibility for other functions that are national in scope, such as forestry research and monitoring of policy implementation.</p>	<p>Ministry of Primary Industries NFC, The National Forest Council</p> <p>planning, management and development of forest resources.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • provision of advice and technical assistance to the states, including the provision of training and research facilities; • control of functions related to trade, industrial development, and the environment • National Forest Policy formulation 	<p>Federal Forestry</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • formulation of national forest policy; • land-use planning, forestry development, and environmental management; • projects of national interest; • research, training and education; • trade and industrial development; • institutional development 	<p>Russian Federal Forest Service, changing to the Federal Forest Administration</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • financing the protection, renewal and organization of forest use. • As part of its privatization process, Russia is moving towards a system of user contracts on productive areas of the Forest Fund (Forest Estate); • the unproductive areas will be directly managed by the Federal Forest Administration 	<p>Various Federal agencies, including:</p> <ul style="list-style-type: none"> • US Department of Agriculture's Forest Service. • US Department of the Interior US Bureau of Land Management, • National Park Service, • US Fish and Wildlife Service, • Bureau of Indian Affairs • US Department of Defense. • Each agency has regulatory and management responsibilities for different types of land they control.

	Australia	Brazil	Canada	India	Malaysia	Nigeria	Russia	USA
State Forest Agencies and State Responsibilities	<p>Forestry is a small component of larger integrated departments or multi-resource agencies.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • land tenure; • land use; • public forest management; • water supply; • regulation of private forest land practices • State governments (but not territorial governments) legislate forest practices and grant licenses for forest management on public land 	<p>IBAMA can transfer forest management responsibilities to the states, but until now this seldom has happened in any significant scale.</p>	<p>Most provinces have a Ministry of Forests (or equivalent).</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • management of provincial land; • allocation of timber licenses; • forest policy legislation; • data collection 	<p>State Forest Departments have main operational duties. States also adopt state policies that must be in agreement with policies issued by the Central Government</p>	<p>States have a Forestry Department.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • land tenure/ownership • forest policy at state level • implementation and monitoring of forest policies 	<p>Most states have a State Forestry Department.</p> <p>According to the constitution, states can develop their own forest policy within the framework of the National Forest Policy, but as yet none have done so</p>	<ul style="list-style-type: none"> • The subjects share some authority delegated by the Federal Forest Administration through regional regulation-making bodies; but such regulations will be enforced by the Federal Forest Administration • Leskhozos are state enterprises (a type of regional forest service) that combine forest administration and forest management responsibilities. • Subjects can make decisions regarding allocation of forest plots for leasing and free use 	<p>State Forest Departments regulate forest practice on private land, private industry, and enforce state laws. There is a variety of policy, legislative and enforcement arrangements in different states.</p>

	Australia	Brazil	Canada	India	Malaysia	Nigeria	Russia	USA
Coordination of multiple levels of government	<ul style="list-style-type: none"> National Forest Policy Statement. Regional Forest Agreements; The Australian Forestry Council has developed a set of national principles to be applied in the management of native forest resources used for wood production on both public and private lands; Natural Heritage Trust. 	<ul style="list-style-type: none"> The Programa Nacional de Florestas is composed of projects designed with the participation of all levels of government and the civil society, as well as NGOs. 	<ul style="list-style-type: none"> The Canadian Council of Forest Ministers (CCFM) is focused on making more effective and efficient linkages between federal and sub-national entities; National Forest Strategy. 	<ul style="list-style-type: none"> Third tier of government relationships are left mainly to States. Joint Forest Management has been employed in some areas, which involves partnerships between government and communities In Joint Forest Management agreements, sub-state governments are responsible for forest resources planning. 	<ul style="list-style-type: none"> the National Forestry Council (NFC) is a forum for federal and state governments; Together the central and state governments have prepared national level criteria and indicators for sustainable forest management, have developed a domestic forest management certification system, and have a relatively robust forest regulatory and monitoring system including the National Forest Policy. 	<ul style="list-style-type: none"> The National Forest Policy; Revenue sharing systems are in place between state and local governments; The national forest and wildlife policy is being reviewed to make its implementation more participatory; A national wildlife forest law is being developed with involvement of all stakeholders. 	<ul style="list-style-type: none"> Federal Government has the primary responsibility for coordination but in reality, the institutional uncertainty present in the Russian governance environment prevents effective harmonization between levels of government. 	<ul style="list-style-type: none"> There is no formal mechanism to coordinate forest policy across levels of government - causing some tension between federal and state levels. Some states see federal government influence as excessive. There are several federal agencies that have jurisdiction over federal forest lands and their management approaches are often dissimilar.

	Australia	Brazil	Canada	India	Malaysia	Nigeria	Russia	USA
Regulation of private forest practice and industry	<ul style="list-style-type: none"> • State governments apply the same codes of practices as on public forest land 	<ul style="list-style-type: none"> • IBAMA regulates relationships with private sector, but also states have authority to do so. 	<ul style="list-style-type: none"> • Provincial governments legislate forest practices on private forest land 	<ul style="list-style-type: none"> • Industry cannot obtain leases for access to forest resources. Industry does no longer obtain wood supplies from government forests. • National Forest policy encourages partnerships with local communities for securing forest raw material supplies. • Some sectors of the paper industry remain protected by import tariffs. 	<ul style="list-style-type: none"> • State governments legislate forest practices within the broader context of the National Forest Policy 	<ul style="list-style-type: none"> • State governments can develop forest policies within the context of the National Forest Policy. 	<ul style="list-style-type: none"> • Four types of licenses can be granted to the private sector such that forest operations and the implementation of management plans will be undertaken by forest users (licensees) while the central government or the subjects focus on strategic, regulatory, and enforcement activities 	<ul style="list-style-type: none"> • State governments legislate forest policy for private forest management. • Federal environmental legislation affects forest practice on private lands, most importantly the Endangered Species Act and the Clean Water Act, with each state having the flexibility to design its regulatory framework to comply with national legislation.

TABLE 2 - The Decentralization of Forest Institutions: Potential Advantages, Dangers and Examples of Policy Options

Potential advantages	Potential dangers	Examples of policy options to deal with disadvantages and profit from potential advantages
Deconcentration reduces bureaucracy and reduces decision-making congestion at the centre.	Coordination, implementation and monitoring of national policies may be a great deal more difficult	Identify those national policies that have an overriding importance over the preferences of decentralized bodies and establish clear rules for their enforcement at national level, including penalties and rewards.
Faster decision-making, particularly in the case of routine decisions	Economies of scale in implementing certain actions (for example, procurement) may be lost.	Some of these costs may be unavoidable. Procurement may be kept as a centralized operation but the costs of doing so in terms of longer administrative procedures, possibilities of corruption and lack of "touch" with local demands may be higher than the potential benefits derived from scale.
Deconcentration leads to institution building at the local level. Also leads to better understanding of conditions, needs and constraints at the local level. It facilitates information flows between local and central governments and between institutions of the civil society and the private sector and government institutions. There is a better scope for establishing partnerships with organizations outside the government. Local knowledge can be exploited more fully.	<p>The "broad picture" of national forest management and development may be lost. Decisions may be conditioned by local objectives that may or may not coincide with national objectives.</p> <p>Decentralization may result in the allocation of central resources to regions, ethnic groups or political associates which may threat national coherence.</p> <p>Decentralized organizations may have limited technical and managerial knowledge.</p>	<p>Identify those national policies that have an overriding importance over the preferences of decentralized bodies and establish clear rules for their enforcement at national level, including penalties and rewards. Implement dissemination and awareness programs to promote national policy objectives.</p> <p>Ensure broad-based public discussion of forest decentralization policy issues. At minimum, this includes dissemination of information and establishing consultative mechanisms involving key stakeholders.</p> <p>Promote training and dissemination programs to strengthen local technical and managerial capacity. Promote decentralization selectively, only to those local institutions that are able to deal with the managerial and technical demands of the process. Where adequate, tap local knowledge.</p>

Potential advantages	Potential dangers	Examples of policy options to deal with disadvantages and profit from potential advantages
<p>If decentralization leads to privatization, or to organizations that need to function as separate profit centers, decisions are more subject to the discipline of the market. At least some subsidized operations will be eliminated.</p>	<p>Decisions may be conditioned by purely financial considerations that may not coincide with national or even local objectives.</p> <p>Decisions may be socially or environmentally undesirable or unsustainable. Non-commercial objectives of national policy may be lost.</p>	<p>Identify national policies that have an overriding importance over the preferences of decentralized bodies and establish clear rules for their enforcement at national level, including penalties and rewards. Establish incentives such as subsidies to induce decentralized and privatized institutions to conform more closely to national priorities including those priorities that are not financially attractive such as those related to environmental quality (preservation of valuable ecosystems, biodiversity, carbon storage, etc) and social improvement (equity, the elimination of poverty, etc.).</p> <p>Establish clear rules of the game so that local space for decisions will be constrained within the boundaries of national priorities (for example, the need to ensure sustainability of benefits derived from forest management). Promote training and capacity building programs at the local level.</p>
<p>It is easier to involve local populations particularly if actions requested from them are linked to benefit sharing.</p>	<p>Local elites may control and use decentralized institutions for their own benefit. Decision-making may be less transparent and less responsive.</p> <p>If local governments do not produce a substantial economic surplus, net transfers from the central government may be lost.</p>	<p>Identify key stakeholder groups and promote democratization of decision-making. Some common and uniform rules of the game may have to be imposed on local institutions to ensure equitable sharing of benefits and costs. Promote transparency in decision-making. Create channels for community participation. Promote open and public procurement schemes.</p> <p>Net economic transfers from the central government may be desirable on social and environmental grounds. Establish clear policies regarding central government subsidies to local institutions, what circumstances may make these net transfers acceptable.</p>
<p>Greater sense of "local ownership".</p>	<p>Local ownership may be lost if benefit sharing becomes more inequitable. Decentralized forestry offices may be controlled by special interests. Decentralization may increase arbitrariness and corruption.</p>	<p>Some common and uniform rules of the game may have to be imposed to local institutions to ensure equitable sharing of benefits and costs. Identify key stakeholder groups and promote democratization and transparency in decision-making.</p> <p>Encourage participation in decision-making and a free flow of information. At the local level, focus on the establishment of mechanisms for greater transparency.</p>

Potential advantages	Potential dangers	Examples of policy options to deal with disadvantages and profit from potential advantages
Political decentralization leads to a larger share of benefits remaining in the localities and communities that generate them.	<p>Central government may lose revenues and manpower.</p> <p>Local elites may gain control of benefits and create greater inequality.</p> <p>There may be overwhelming pressure to "mine" the forest for immediate local benefit.</p>	<p>The loss of central government resources is an unavoidable cost of decentralization. Policies to promote training and capacity building programs may alleviate these tensions.</p> <p>Identify key stakeholder groups and promote democratization of decision-making. Some common and uniform rules of the game may have to be imposed to local institutions to ensure equitable sharing of benefits and costs.</p> <p>Establish and control forest management minimum standards to be followed by decentralized institutions. In certain circumstances, mining of local forest resources may be accepted by policy.</p>
With political decentralization, there is potential for a greater coincidence between local traditions and informal rights, on one side, and formal norms imposed by the government, on the other.	If formal norms were previously ineffective and de facto informal norms prevailed, decentralization may increase conflict between formal and informal norms.	If local norms led to sustainable livelihoods and sustainable forest management, then complete devolution may be in order, with as little meddling from government as possible. If informal norms led to unsustainable practices, then a system of incentives may be in order. Adequate policy decisions depend on a proper understanding of highly specific local conditions.
Political meddling by central powers may be more difficult.	<p>Local government officials with greater responsibility and power may use decentralized institutions for their own political and personal purposes. Central government political meddling may be simply replaced by local political interference.</p> <p>Decentralization may be a vehicle for central political parties to penetrate the rural and forest economy.</p>	Promote local democratization, participation and transparency in decision-making. Design accountability rules including openness of decision-making processes and penalties for misuse of local resources for political gain.

Potential advantages	Potential dangers	Examples of policy options to deal with disadvantages and profit from potential advantages
<p>With political decentralization, corruption may decrease if the discretionary powers of central government officials decrease and if, due to greater levels of participation, decisions of local officials can be more closely scrutinized.</p>	<p>If monitoring and control from the centre are loosened, particularly if decentralization is not accompanied by participation, there may be more opportunities for corruption. Local elites and local government officials may conspire more effectively to carry out corrupt schemes.</p>	<p>Promote local democratization, participation and transparency in decision-making. Design accountability rules including openness of decision-making processes and penalties for misuse of local resources. Establish a truly independent monitoring office and an office to accept and investigate reports by "whistle blowers". Encourage the media to report situations where malfeasance is suspected. Diversify service providers for increased choice. Increase technical assistance to foster public-private partnerships.</p>

TABLE 3 - Policy Interventions Needed to Build Strong and Effective Linkages In Forest Governance Systems

Area where strong Linkages are required	Areas of Policy Intervention
Sharing Power/Authority	In most of the countries looked at, the ownership and authority over forest lands and their use was set by a constitution, which often gave all powers to the provinces or states. Yet, authority for many key elements required for good management, such as the right to tax and charge for forest use and to generate revenues has remained with the central governments, although oftentimes fees are collected by the states or provinces and passed on to the federal treasury. Authority related to forest development and conservation needs to be looked at in a holistic fashion. Authority to develop a budget needs to be linked to revenue generation in order to encourage fiscal responsibility.
Effective Accountability	In some cases, the provision for accountability of local authorities for their actions has been de facto and not provided for in law nor in the normal balance of interests and power in a local area, state or province. Ruling elites have dictated policies, including access to resources and use of forests. Forest crime has been rampant and tolerated by local authorities. There is need for clear policies through law that assure full representation and accountability and provide for appropriate penalties for non compliance and the ability of federal authority to enforce laws. At the same time, law has to ensure a balance of power between federal and other levels of government and provide for protections for private property and activity. Often these requirements are more fundamental and the laws deal with states rights and responsibilities as a whole rather than with a sector.
Sharing Responsibilities	Responsibilities for forest management actions are often assigned on an ad hoc basis, although in some cases there have been formal agreements or responsibilities have been dictated from the federal level. In certain cases, e.g., related to forest protection, river basin development, trade, etc., there are clear reasons why the federal government has retained responsibilities (since protection often requires interstate actions); in other cases, there is equally clear reasons why the states should have the responsibility. In most of the countries reviewed, the share of responsibilities held by different entities were not always clear and they differed between countries, with the exception of certain clear cases of assignment by law. Overlapping responsibilities also occur, generally because of lack of clarity in laws and regulations.
Financing and Revenue Sharing	Different countries have different laws with regard to revenue sharing. In some cases, the tendency has been for the central or federal government to provide the major resources for state programs and also to collect the revenues from resource use. In some cases, the revenues are provided to states on a formula basis, e.g., in the case in lieu payments provided when lands are in federal ownership and they generate revenues that are shared with states in lieu of taxes. In other cases, states have clear rights with regard to revenue generation associated with forest use.
Linkages among sectors	The country examples in many cases are not clear with regard to the formal linkages that have been established between sectors across the economy and between government, private and civil society entities. However, it is quite clear that such linkages are important, that they often are better established in law and that various incentives often are required to develop effective cross sectoral linkages.

TABLE 4 - Meeting Requirements for Effective and Efficient Sustainable Forest Management

Meeting the Requirements Requires:	Requirements for effective management by Public, Private and Civil Society Entities:			
	Adequate KNOWLEDGE,	Appropriate AUTHORITY and Rights	Adequate RESOURCES to meet responsibilities	Strong MOTIVATION to do what is right at the right time; and not to do what is wrong ("forest crimes" and corruption)
Public management of forests and "public goods" such as research, education and training functions	Basic inputs to the knowledge function through public research, education and training. Management entities need to have adequate technical capacity as well as managerial capability. The public sector most often provides the support to build capacities.	Wide distribution through various public channels of knowledge of the rights held by different groups is essential to effective action; making the "rules of the game" clear is a public education as well as communication function makes the job of management much easier.	It is not only availability of resources that is important, but also the knowledge of which resources actually are needed to carry out the responsibilities assigned. Governments run various loan and insurance programs can be critical for success, among other things, reducing the level of uncertainty and risk.	Public education, research and extension provide essential information on potential benefits from actions and investments of time and resources. Thus motivation depends on having the right information in hand; public management is necessary in the case of public goods where no individual entity has the incentive to provide the particular good or service, e.g., education and other services, e.g., fire protection.
Laws and Regulations at different levels of government	Laws/regulations often encourage groups to seek key information needed to manage effectively and efficiently; clarity of legislation and regulations is critical, as shown in several of the case examples.	Basic to the establishment of authority and rights in a democratic society; also key to keeping corruption and graft in check; laws need to establish the conditions for appropriate checks and balances on use and misuse of power and authority at different levels of government.	Laws are required to redistribute public resources and/or generate new resources through taxation, etc. Regulatory mechanisms can keep fiscal irresponsibility in check and can provide the means for a country and its state and local governments to get resources needed to finance sustainable forest development and protection.	Laws that create stability and clarity are required to provide the motivation to do anything other than what generates short term gain. Laws often provide the motivation for public servants to act honestly and in the public interest.

Fiscal and Financial mechanisms	Subsidized research and financial grants and loans can be critical in terms of generating required knowledge.	Fiscal and financial changes often are required to effectively implement new authority and rights. Giving management entities the means and authority to tax and fund budgets/programs can be critical and can stimulate fiscal responsibility in lower levels of government.	Taxation; subsidies and timber revenues are basic public means of generating resources for public forest management at all levels; in many countries complex systems of forest charges need to be replaced by simpler forms; incentives for desirable actions and to avoid undesirable ones are basic tools in a decentralized system of government.	Subsidies and public payments for socially desirable services (biodiversity conservation, forest protection for carbon sequestration and for other social purposes) are the fundamental tools that provide incentive/motivation for groups to manage forests in socially responsible ways.
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ENDNOTES

¹ Naturally, states or sub-national units of government generally confer responsibilities and authority for various functions to local levels of government, or such may be done directly through the constitution.

² Note, however, that federation still involves devolution of responsibilities and authority from a situation where, within a given state, all were centrally held by the state to a situation where it confers ("decentralizes") some powers to the federal government, i.e., authority and responsibilities are dispersed. Decentralization refers to a process of dispersion of authority, responsibilities, etc., but not necessarily from federal or central government to state or lower levels of government.

³ New Zealand is an extreme case of decentralization involving a shift from the public to the private sector.

Detailed information on Australia's forest governance can be found on the website of the Government of Australia's Department of Agriculture, Fisheries and Forestry (www.affa.gov.au).

⁵ cf. forest related discussions on Australian Wilderness Society's website (www.wilderness.org.au).

⁶ IBAMA, however, does not have control over indigenous lands, which remain under the responsibility of the Indian Affairs Agency, FUNAI. This is a substantial area, almost 100 million ha (Toni 2003).

⁷ Since it provides such a detailed perspective on federal provincial and territorial relationships over time in the forestry sector, we have excerpted the following paragraphs

from Natural Resources Canada's 1997 publication, "The State of Canada's Forests: Learning from History, 1996-1997."

⁸ It is interesting to note that some 200 corporations own 27 percent of all private forest lands, whereas some 71 percent of all private forest land owners only own 3 percent of the land. Ownerships over 100 acres are held by less than 8 percent of all owners. (Thomas 1995)

⁹ The name "Sagebrush Rebellion" comes from the fact that President-elect Reagan sent a telegram to the "Sagebrush Convention" in Utah, stating: "best wishes to all my fellow "Sagebrush Rebels." The focus was on grazing lands owned by the Bureau of Land Management and only peripherally involved national forest lands. (From the Forest Service Daily News Digest, December 1, 1980, as reported by the Forest History Society on its web site (www.lib.duke.edu/forest).

¹⁰ As reported by the Forest History Society from draft materials from the Policy Analysis Staff Group of the U.S. Forest Service. (www.lib.duke.edu/forest/usfscoll/policy/States_Rights/1980_FSresponse.html).

¹¹ The World Bank has been actively involved with helping Russia to rationalize its forest policy and management. In this sense, we are fortunate to have available the draft proceedings of a major recent workshop in Moscow sponsored by Russia and the World Bank (World Bank forthcoming). We also are fortunate that IIASA has been doing some major work on Russian forests (e.g., Nilsson and Shvidenko 1998 and Shvidenko 2003). This section draws throughout on this set of papers.

¹² As set out under the Federal Law "On General Principles of Organization of Local Self-Government in the Russian Federation".

¹³ Since the term "concession" is often understood *sensu stricto* by opposition to "lease" and "short-term use", we will here use the term "user contract" or "delegation contract" to cover all four categories in a broad sense.

¹⁴ We are particularly thankful for the comments from Prof. K. Adeyoju of the University of Ibadan.

¹⁵ For example, the stumpage rate for *Mansonia altissima* is set at very different levels in the following states: N 225 in Kogi State; N 500 in Ogun State; N 750 in Ondo State; N 300 in Lagos State; and N 1,000 in Ekiti State.

¹⁶ In 1993, the Federal Government directed all state governments to pay 10 percent of revenues generated into a Forestry Trust Fund for the management of forest resources. This directive has not been implemented by many state governments.

¹⁷ A World Bank report (1990) pointed out that deforestation is one of the most serious environmental problems in Nigeria and that it affects 50 million people with sustainable production from forest resources worth some \$750 million annually.

¹⁸ Within districts and municipalities, there are subdistricts (*kecamatan*). Within subdistricts, villages (*desa* in rural areas and *kelurahan* in urban areas).

¹⁹ "Regions" refer to provinces and districts as well as cities.

²⁰ Main Government Regulation on Forest Planning PP33/1974.

²¹ Basic Forestry Law 1999/41 (*Undang-Undang Dasar Kehutanan*).

²² Kumaon includes the six Himalayan districts of the new state of Uttaranchal, namely, Nainital, Almora, Bageshwar, Pithoragarh, Champawat and Uddham Singh Nagar. Uttaranchal lies in the northern part of India amidst the Himalayas and dense forests. The state is bordering Himachal Pradesh in the northwest and Uttar Pradesh in the south and has international borders with Nepal and China.

²³ Among other things, local people hastily cleared forest land when the nationalization

was taking place so they could retain their tenure of the land as "agricultural" land.

²⁴ In 1990 they became the "Village Development Committees."

²⁵ Based on Faguet, 2003

²⁶ This matrix describes a highly simplified view of the roles of the various agencies in federal systems.

²⁷ Due to the tremendous reform currently underway in Russia, some of the information in this table refers to potential outcomes of the near future and not the present situation.